Hugh Walters

THE LAST DISASTER

The Last Disaster

by the same author

MURDER ON MARS

THE CAVES OF DRACH

The Last Disaster

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One

"Two point eight seconds!"

Those four words brought a gasp of dismay from the score of men and women who heard them. For a moment there was a stunned silence as each listener tried to work out all that the announcement implied.

Taking advantage of the temporary lull before the storm of questions that he knew must follow Dr Pointon repeated and enlarged his statement.

"There is no doubt about it, ladies and gentlemen. Last week's eclipse of the Sun was two point eight seconds earlier than it should have been," he said, taking off his glasses and polishing them.

"I do not believe it," growled a grey-haired man with a square jaw. "There is obviously a timing error."

"I can assure you that there is not. There has been no error," Dr Pointon insisted, settling his glasses back into their right position. "I am disappointed in you, Mr Voronoff. My reputation should be sufficiently well known for you to believe that I would not have called this International Symposium together without just cause. I can assure you that there has been no error in observation, for my figures have been confirmed by no fewer than six independent observers within the path of the eclipse."

"But—but that is impossible to believe," the Russian astronomer spluttered. "Why should the eclipse be early, and what does that mean?"

It was one of the four women present who answered. Kathy Benson was an American astronomer from the famous observatory at Mount Palomar. She had long dark hair, and was extremely good-looking.

"It means," she said seriously, "that something must have disturbed the Moon in its orbit. I have done a few calculations since I received Dr Pointon's message. The lunar orbit has contracted its radius by some hundred and fifty miles."

All astronomers know that the Moon does not follow an exactly circular path round the Earth, and that its distance, therefore, varies a little. But this variation is regular and well known. It is taken into account when eclipses of the Sun or occultations of the stars (the occasions when the Moon passes in front of the stars and blots them out) are calculated. The reduction in the Moon's distance mentioned by Miss Benson was something new. And anything new in astronomy is the subject of great interest and speculation.

"Is Mademoiselle Benson saying that the Moon has suddenly moved nearer to the Earth?" asked Emile Fouque from the Observatory of Paris.

"All that I am saying is that if the Moon has speeded up—which Dr Pointon's observations imply—it must be because its orbit has contracted and it has moved in nearer to us."

There was no need to explain to this distinguished company that the velocity of a satellite round its primary depends on its distance away. If a satellite—whether it be man-made or natural—is close to the body around which it is circling, it must move fast to avoid being drawn in by the attraction of its primary. If it moved too slowly its orbit would soon be contracted and destroyed. On the other hand too great a speed would likewise cause the orbit to be destroyed and the satellite would shoot off at a tangent.

The centrifugal force of the Moon and the gravity that draws it to Earth are finely balanced. That is why the behaviour of the Moon has always been known so accurately. Until now!

Fred Lodes, the Canadian representative at the gathering and also its youngest member, remembered how his father had explained this to him when he was a boy.

"If you take a stone, tie it to the end of a length of cord and swing it round your head," Lodes senior had said, "the cord prevents the stone from flying away. If the cord breaks the stone will shoot off, or if you slow down your turns the stone will fall to the ground."

So Lodes senior had given young Fred his first lesson in celestial mechanics, and since then he had pursued the subject with enthusiasm.

There was no need for him to do any calculations. If the eclipse had been early, even by so small a margin as two point eight seconds, it meant that the Moon had indeed speeded up. So—if the invisible cord which tied it to Earth had not been broken—our satellite must have moved closer to us.

"Have your figures been checked, Miss Benson?" asked Voronoff.

He was referring to the extremely accurate means of measuring the distance between Earth and Moon. A series of mirrors had been placed in certain spots on the lunar surface. Laser beams could be focused on them from Earth, and the time taken for the reflected light to return to Earth could be measured with an extraordinary degree of accuracy. It was claimed that the distance to the Moon could be measured to within less than a quarter of a mile.

"Not as far as I know," Kathy answered, "but I have no doubt that Dr Pointon can arrange for it to be done."

Dr Pointon nodded. Like the others he looked grave, for anything that disturbed the age-old order of things must be serious. If the Moon had, for some reason, moved closer to the Earth, then they must look for the cause. And—even more important—they must find out whether the process was continuing.

"I suggest we adjourn this symposium for, say, two weeks," Dr Pointon said. "During that time we can all work in our various fields to try and discover just what is happening. There is no solar eclipse due in the next fortnight, but the occultations of stars can tell us whether or not the Moon has speeded up and is still doing so. At the same time I will arrange for a number of careful measurements of the distance to be made. Is that agreed?"

It was. The astronomers stood up and formed groups to discuss the implications of what they had learned. Kathy Benson and Fred Lodes found themselves the centre of a little knot of more senior colleagues. Though they were, by a considerable margin, the two youngest people in the room, their professional standing was such that older scientists treated them with respect.

"Just a moment!"

Dr Pointon had rapped the table to attract attention.

"Er—ladies and gentlemen," he began with a slight cough of embarrassment, "the—er—implications of what we have been discussing, and what we are setting out to prove or disprove, are so serious that I suggest we all agree to keep the matter strictly confidential."

There was a general murmur of agreement. A disturbance of the Moon's orbit could have such cataclysmic results that it would be unsafe to let the general public know about it. Even those calm men and women of science were reluctant to admit to themselves what their reason told them was going to happen.

Fred and Kathy drifted out of the room together.

"How long do you give us?" she asked.

"I don't know, Kathy. Let's get some more observations before we start doing too many sums."

The flight had lasted for more than an hour before Chris Godfrey noticed the girl in the seat on the other side of the gangway.

"Kathy! It's Kathy Benson, isn't it?"

She put down the magazine she was reading and smiled.

"I was wondering how long it would be before you noticed me. How are you, Chris?"

"Fine," the young Deputy Director of the United Nations Exploration Agency replied. "And you? Still busy pursuing pulsars and peering into black holes?"

"Something like that. And what about you, Chris? Been on any good space flights lately?"

The astronaut grinned back at her. They had known each other for over five years, but it was more than nine months since they had last met.

"No. They tell me I'm too old. I've got to do my space exploration from the comfort of an armchair. Like you."

"I wouldn't exactly call an observation couch an armchair. It can be very uncomfortable after a few hours glued to the end of a telescope. Are you off to the Cape?"

"Eventually, yes, but I've some U.N.E.X.A. meetings to attend in New York before I fly south. What are you doing over in London? I thought you didn't like the place."

"Oh, Chris, you know that isn't true. I love your city and its old buildings."

"You seem worried, Kathy," Chris said suddenly. "Anything the matter?"

His keen eyes had detected the look of strain on her face. She had hardly slept the previous night. Ever since Dr Pointon had adjourned the meeting she had thought of little but the ghastly consequences of her deductions. Even a friendly drink afterwards with Fred Lodes had failed to dispel her forebodings, for she guessed that Fred had arrived at the same conclusion. How good it would be if she could share her secret with her old friend Chris Godfrey.

But no, it wasn't to be. Though she had no doubt that he would respect her confidence, it wasn't fair to burden him with the knowledge—at least at this stage.

"There's nothing the matter, Chris. I don't think this shuttling backwards and forwards suits me. I never seem to catch up on my lost sleep. I can never even doze on a plane."

"You'd never make a good spacewoman. We have to snatch a rest at any odd moment. And in some very peculiar positions, too. Now tell me. What have you been up to lately? What work are you on now?"

She wished he wouldn't question her. She hated to deceive him, but she had no alternative.

"Oh, just routine stuff. We're plotting some new radio sources in Andromeda. Nothing spectacular. How about you, Chris?"

"I'm at a bit of a loose end, I'm afraid. You know the U.N.E.X.A. budget has been sliced? Well, we've got to wait for a new allocation of funds before we can get on with our next project."

"And what's that?"

"Shouldn't tell you really, but I know you'll keep quiet about it. We're going to put a crew down on to the surface of Venus."

The girl gasped.

"You can't do that! You know what conditions are like. No one could survive on the planet for ten seconds."

"Oh, we know what conditions are like," Chris answered seriously. "We have had a good few probes poking about on the surface. And I've been quite near to it myself, remember. We are confident we now have the means to land a crew."

"You're not going, are you, Chris?"

"Gosh! No. They say I'm to stay on the ground," the astronaut grumbled. "Still—perhaps the Director will have changed his mind by the time we get the go-ahead. I shall certainly work on him."

A stewardess came along the gangway carrying trays of lunch packs. Though she welcomed the chat with Chris, Kathy was a little relieved at this enforced break in their conversation. It was a strain having to avoid any reference to her real work and the vital task upon which she was now engaged. But at last the meal was finished, the empty trays were collected, and Chris again turned to Kathy.

"Oh, how are your friends?" she asked before he could say anything. "Do you see much of them these days?"

"Not as much as I'd like to, but I'm hoping to have a few hours with Morrey while I'm in New York."

He was referring to Morrison Kant, the tall, crew-cut American, his oldest friend, with whom he had made so many exciting and dangerous space voyages. Morrey was on leave at that moment from a programme of visits to universities where he had to give space lectures to students. He didn't like the job, but it was better than doing nothing until U.N.E.X.A. required his services for another venture out into the solar system.

"What about the other two? Tony and the Russian?"

"Tony and Serge? Oh, they're all right. Both of them are in Lunar City at the moment. They should be back—"

"Lunar City?" Kathy interrupted. "What are they doing there?"

Lunar City was the huge base on the Moon where scores of men and women spent tours of duty doing a wide variety of jobs. She herself had had two months in the observatory there. Every astronaut had to spend some time on the Moon to keep accustomed to the strange conditions, and many scientists too, were expected to visit Lunar City some time during their careers.

"Oh, routine stuff, I expect," Chris replied easily. "Are you likely to go there again?"

Kathy swallowed hard. It really was difficult to keep talking about the Moon without revealing what she knew. She thought of all the men and women in that strange artificial world of Lunar City, and wondered if any of them realized that the Moon had moved closer to Earth.

"Can Morrey and I meet you during the next few days?" Chris asked.

"Oh—er—I don't know," Kathy faltered. There was nothing that she would have liked better than to spend an evening with the two astronauts. But she would be absorbed in her work, checking observations and calculations ready for the resumed seminar. She doubted whether, with so much on her mind, she would be good company.

"Let me have the phone number of your hotel and I'll call you if I possibly can," she promised. With that Chris had to be content.

Two

Although Chris phoned Kathy's hotel three times he was unable to speak to her. Each time the hall porter informed him that Miss Benson was out, and the astronaut wondered what kept her so busy.

Actually Kathy was working as hard as she had ever done. She spent many hours shuttling to and from Mount Palomar, noting the time that the Moon occulted, or passed in front of, certain stars. Back in New York she had to process her results through the giant computer that had been placed at her disposal.

Twice during those hectic days she put through a call to Montreal and spoke to Fred Lodes. Working quite independently, he had come to almost exactly the same conclusion as Kathy. Neither actually mentioned over the phone what it was, for there is always the chance of a crossed line or an inquisitive operator.

"See you in London," Fred said at the end of their second talk.

"I suppose so," Kathy answered heavily. On this occasion she would get no joy out of visiting her favourite city. It would be heartbreaking to see all the historic places of London—knowing what she knew.

The night before he was due to fly down to Cape Canaveral Chris spent some hours with his friend Morrey. The American confessed that he was no lecturer, and he would be heartily glad when his lecture tour was over.

"When do you think we shall get the go-ahead for the Venus shot?" he asked as the two sat at their table in a famous restaurant on Fifth Avenue.

Chris shrugged his shoulders.

"That's anyone's guess. You know how difficult national legislatures have become lately about U.N.E.X.A. finance. We'll just have to hope that enough of them pass the budget to allow us to start work."

"It must have been very different after the last war," Morrey mused. "Then there was great rivalry between my country and Serge's. Congress voted almost unlimited funds for winning the space race. Now all nations work together under U.N.E.X.A., so I suppose there isn't the same sense of urgency. Everyone argues how much better it would be if the money was spent on Earth."

"You and I know the answer to that one," Chris nodded. "Space research has made a fantastic difference to almost every branch of science. But how many people would believe us? Shall I try Kathy once more before we order our meal?"

Morrey brightened up.

"Yes, do—though I don't think you'll be very successful," he said. However, Chris was. Five minutes later he was speaking to her.

"Kathy! What have you been doing with yourself for the last week? I've tried to get in touch with you half a dozen times."

"Oh, I know, Chris. The porter told me about your calls, but, believe me, I haven't had a second to breathe. And I was so looking forward to seeing you and Morrey again."

"He's with me here at the Haven Restaurant on Fifth Avenue. Come right over and join us, Kathy."

The girl hesitated.

"I'd love to. I have got an evening off—but, Chris, I've got nothing to wear."

"Come in your bathing suit then," he laughed back. "Put on anything, Kathy. Morrey and I are in casuals. See you in half an hour."

Before the girl could protest he had hung up the phone and gone back to Morrey.

"Got her this time," he reported. "She'll be with us in thirty minutes."

"Great! Then we won't order the meal yet," Morrey beamed. It would be nice to have Kathy Benson for company. It seemed ages since he'd last seen her.

"She's late," he remarked some time later. "That's not like Kathy."

Both of them knew that her job and her training made her always very conscious of time. Something must have happened to delay her.

"Ah! Here she is," Chris said, rising to his feet and walking towards the foyer. Kathy had just come through the swing doors and was looking round. Morrey followed Chris. She saw them and moved towards them with outstretched hands.

"It's good to see you both! How are you, Morrey? Are they turning you into a college professor? I'm sorry I'm late. Taxi trouble, you know."

"Don't worry," Chris smiled. "We haven't ordered yet. We guessed something had delayed you. For I will say this—of all the women I know you are the most punctual. As regular, in fact, as the planets in their orbits or the Moon on its path."

The look that came over the girl's face startled the two men.

"What's the matter, Kathy? Aren't you well?" Morrey asked, leading her to a table. "You've gone quite pale."

How could she explain that Chris's reference to the regularity of the Moon on its path had shaken her? How could she tell them that the Moon was no longer as predictable as they thought? It was a mistake to have come. How was she going to spend a whole evening with these two good friends without betraying her dreadful secret?

With a brave effort she managed to smile.

"It's—it's nothing, I've just remembered that I ought to have stayed in to write a report. Still—I'm here now. And I'm frightfully hungry."

The evening meal went well, better than Kathy had expected, but she didn't see the puzzled look that flitted over Chris's face several times. He felt certain that something, something tremendous, was on her mind.

Security for the London meeting was unobtrusive but effective. The gathering was held in the former Air Ministry building in Theobalds Road. The top floor, including the conference suite, had been set aside for Dr Pointon's resumed symposium. Only a handful of people in that large building were aware that some sort of conference was taking place, and they assumed that this one was no different from hundreds of others.

It was Dr Pointon himself who identified and admitted his colleagues. Only those who had been at the former meeting were allowed into the conference room.

"I think we are all here now," he said at last. "I've locked the door and there are two commissionaires outside. We shall not be interrupted."

Kathy Benson helped to hand round the coffee which had been prepared beforehand and set on a trolley, but there was little conversation as the scientists sipped at their cups. At last Dr Pointon called the meeting to order.

"Ladies and gentlemen," he began, "or perhaps I should be less formal and say 'colleagues and friends'. Well—you all know what happened when we last met. We heard some startling news, and before we got bogged down in too much speculation, we decided to adjourn, to investigate and check the information. Now we are gathered together to make our reports. I'll come straight away to the main question. Is the Moon really moving nearer to the Earth?"

No one knew to whom the question had been directed, and everyone wondered who would speak first. It was Fred Lodes who broke the heavy silence.

"I'm afraid it is, Mr Chairman," he said quietly. "I've made a fair number of observations and done a few sums since we last met. I have no hesitation in saying that the Moon has accelerated a little. Why—I don't know."

His statement seemed to release a flood of words from the other participants. One after another they revealed that their own researches had also confirmed that Earth's satellite was behaving strangely. It had certainly moved closer to its primary.

"The important question is—was this change in the lunar orbit a unique occurrence, or is the Moon continuing its erratic behaviour?" asked Dr Pointon.

They all knew that if the Moon had been disturbed by some unknown influence and had then returned to a stable and predictable orbit, its approach by a few hundred miles wouldn't be terribly important. But if it was continuing to draw nearer that would be a very different thing.

"It is continuing," Kathy Benson declared, speaking for the first time. "We have checked and double-checked at Palomar. We are sure that the Moon is still accelerating and getting closer to us."

"I can confirm what Miss Benson says," Dr Voronoff told his colleagues. "We have done some laser beam measurements. Our first ones showed that the Moon was accelerating by 1.5 kilometres per hour and had moved in some hundred and fifty miles, or two hundred and forty kilometres, as was stated at our last meeting. Now the acceleration is over two and a half kilometres per hour and the orbit has closed in by over three hundred and eighty kilometres."

There was a strained silence in the room. They all felt a cold chill as they realized what was happening, and—even more dreadful—what was likely to happen.

"I take it then," said Dr Pointon with commendable calm, "that we are all agreed. Our satellite is continuing to approach us at an ever faster rate."

"Yes, sir," Fred Lodes answered for all of them. Then he went on, "From my calculations I can give you some more information."

Everyone looked at the young Canadian. They all knew his expertise and respected him in spite of his youth. Kathy was looking at him intently, her dark eyes wide with the dread of what she feared he would say.

"I reckon that in approximately five years' time the Moon and the Earth will collide," Fred declared.

They had all known, in their hearts, what to expect, but they had all been reluctant to put their fears into words. Now the Canadian had said it for them. Earth and its satellite would collide in about five years' time—and both would be destroyed!

Every one of that score of men and women had to fight off a terrible panic. But they were all highly intelligent people, experienced in facing facts and seeking the truth. What must they do now?

The first thing, surely, was to preserve their own calm and dignity, not to give way to terror. Kathy Benson, her own battle won, looked round at her colleagues.

Fred Lodes seemed the least affected. Catching her eye, he gave her a wink and a grin. It was almost as if he thought it all a huge joke, but he was putting a brave face on it. Dr Pointon was pale and looked austere. Emile Fouque was sweating. Dr Voronoff's hand shook as he stroked his thin beard. The rest of the company were taking the situation very well.

At last Dr Pointon rapped on his table to attract attention.

"Has anyone any suggestions about what we should do now?" he asked. M. Fouque and Dr Voronoff began to speak together, but it was the Frenchman who persisted.

"If we are certain—quite certain—that Earth will be destroyed in five years' time, we must tell the United Nations and all national governments. It is our duty to report what we have discovered."

"I do not agree," Dr Voronoff burst out. "If we tell anyone, even governments, it will become known universally. Then we shall get panic, riots and madness."

"Do you think people will take it badly?" asked Fred Lodes.

"I am sure of it," the Russian answered earnestly. "We ourselves are taking it calmly for the moment because we are forcing ourselves to do so. Imagine what ordinary people will do if they get to know that the whole Earth will be utterly shattered in less than two thousand days."

"It doesn't bear thinking about," said Kathy, horror showing on her face. "I can just imagine people going mad with fear. There will be rioting and orgies and looting. Law and order will vanish."

"Many people will not be able to stand the strain of waiting till the end," said Laura Laurensen, a tall, middle-aged Danish woman. "They will wish to end their lives themselves."

"So—I repeat—what are we to do?" Dr Pointon asked again. "The twenty people in this room are the only human beings who know the truth. Can we—should we—keep this dreadful knowledge to ourselves?"

"I—I shall dread going out from here," Kathy said. "It will be terrible meeting people—happy, smiling men, women and children—knowing that they will all soon be dead. I—I don't think I can face them."

"You must, Kathy. You must," whispered Fred Lodes, gripping the girl's arm. He could see the first signs of hysteria. If this could happen with an intelligent and well-balanced young woman like Kathy Benson, he shuddered to think what could take place outside.

At that moment Kathy thought of Chris Godfrey and Morrey Kant. She could hardly bear to think that these two fine young men were doomed to die with the rest of mankind. But were they? Was there no escape for at least a few people? Could not as many as possible be sent to Mars City, the growing Martian base? Then, at least, a fragment of the human race would be preserved.

In a torrent of words Kathy poured out her ideas to an astonished audience. Several nodded. All looked thoughtful.

"Isn't it our duty to see that our species is preserved?" she ended. "We should tell U.N.E.X.A."

Tell U.N.E.X.A.! The United Nations Exploration Agency that controlled all space research and travel. The only body that could arrange for a selected few to escape to the safety of the Martian base. Was that the answer?

Who knows? thought Kathy. Perhaps Chris and Morrey might be saved after all!

Three

"Are we not going to tell the British and American governments?" someone asked.

"And all the others?" someone else demanded.

"This information is more dangerous than dynamite, more lethal than a hydrogen bomb," Dr Pointon insisted, "and we must handle it with the utmost care. Otherwise it is not hard to imagine what will happen to civilized life. It will totally disintegrate."

"But no matter how strictly this information is guarded, no matter how tightly it is restricted, the secret will eventually come out," Fred observed. "Thousands of astronomers all over the world, both professional and amateur, will become aware of the Moon's behaviour before very long."

"And don't forget the gravitational effects of the Moon's approach," Miss Laurensen pointed out. "It will affect tides and weather, and cause earthquakes. Will it not soon be obvious to all that the Moon has come closer? Miss Benson suggests that a few people could escape by being sent to Mars City. But who will select this handful? What criteria will be used? Who will take the ultimate decision? Imagine—fear-crazed people will try to buy or fight their way on to the space ferry—their last hope of salvation. The scenes around the spaceport at the Cape will be terrible."

The titanic proportions of the problem, the catastrophic results that might follow, and the fearful responsibility of making a decision, persuaded the symposium to throw the whole thing into the lap of Sir William Gillanders, U.N.E.X.A's Director. However, before they dispersed Miss Laurensen came up with a further suggestion.

"I am sure we all want to preserve our civilization as long as possible," she said. "Or to put it another way—we want to put off its disintegration to the last possible moment."

Everyone nodded.

"Then we must give people hope right till the end. We must let them believe that there is a chance of salvation, that—"

"But, Miss Laurensen, you know that there isn't," Dr Pointon said unnecessarily. "Are you suggesting that we should deliberately deceive the public?"

"I am, Dr Pointon," the Danish woman said gravely. "I believe that if we can postpone the tragic truth, give hope right to the end, we shall be fully justified, no matter what means we use."

"Why do you say that, Miss Laurensen?" Dr Voronoff enquired.

"To put it at its simplest:—if we can put off the complete disintegration of our way of life for, say, four years, millions of elderly people will have died naturally. And many others will have four years of love and happiness that would otherwise be denied them. I am sure that it would be merciful to pretend that we have a good chance of saving ourselves."

"But how could we do that?" Emile Fouque asked, mopping his forehead with a purple handkerchief. "A mere child will know that we cannot halt the headlong rush of the Moon."

"I don't know how we can do it," Miss Laurensen admitted, "but if we can, it will surely be worth while."

At that moment there came a knock on the door, and Fred Lodes, who was nearest, opened it. A commissionaire was outside holding an envelope.

"For Dr Pointon," he said. Fred thanked him, closed the door, and handed the missive over.

With everyone watching him in tense silence, Pointon tore open the envelope, extracted a paper and read it through a couple of times.

"I've taken the precaution of making a hotel reservation for all of us," he told them. "I think it will be best if we remain together for a few days. Perhaps it will also be preferable if we don't meet other people until the way ahead becomes a little clearer. Will you all co-operate?"

"You want us to remain—well—kind of prisoners for a while?" asked Fred.

"I wouldn't put it quite like that," Dr Pointon answered with the ghost of a smile, "but I do think it would help us all to keep this dreadful thing confidential until we have sorted out what to do."

"But you cannot keep me here," protested M. Fouque. "I must return to my family in Paris at once."

"No, I cannot keep you here against your will, Emile," Pointon sighed. "But I hope that you will see the wisdom of keeping ourselves to ourselves for two or three days."

"How long do you wish us to remain in seclusion?" asked Voronoff.

"Well, now that we've agreed to pass this over to the Director of U.N.E.X.A., shall we say until I return from my visit to him? Three days at the most."

With a little grumbling the astronomers agreed. None of them really wanted to face their families at that moment. It would be better if they could get their own minds a little more settled before facing the world outside.

"I have reserved the complete top floor of the Hilton Hotel," Dr Pointon went on. "We can shut ourselves off from the rest of the guests and still enjoy all the hotel's facilities."

"What about our clothes?" asked Kathy. "Mine are at my hotel. I'll have to fetch them."

"I'd rather you didn't, Miss Benson," Dr Pointon said. "I'd like us all to go to the Hilton from this room. I'll arrange for any luggage to be collected for all of you if you will let me know your wishes."

"Come on, folks," Fred laughed. "Let's enjoy the Hilton Hotel at someone else's expense."

Dr Pointon was plainly relieved as smiles reappeared all round, and the assembled company prepared to begin their voluntary isolation.

"Good man, Lodes," Dr Pointon thought. "He'll go far." But then he remembered that there would be no future for any of them.

A small fleet of taxis ferried the scientists from the conference to the Hilton. Dr Pointon had asked a commissionaire to phone the hotel to let Reception know they were on their way, and as soon as the party arrived they were shuttled by lift to the top floor, which was to be their home for the next few days.

"Gee!" exclaimed Fred, looking around. "I could never have afforded a place like this myself."

There was certainly every comfort for the scientists to enjoy during their self-imposed seclusion. Television, games and dining facilities were on a lavish scale. They could get instant attention by picking up one of the many telephones.

"I am famished," declared Miss Laurensen. "What sort of meals do they put on here?"

"We'll soon see," smiled Dr Pointon, only too anxious to keep his colleagues happy. "I'll phone for the menu."

They chose their lunch carefully. After all, if they were to remain restricted to this gilded cage they might as well enjoy themselves and get as much out of it as possible. While they were waiting for the food to arrive, Dr Pointon gathered them around him.

"As soon as we have eaten I'm going to contact Sir Billy Gillanders and ask if I can see him at once on a matter of the utmost urgency," he told them. "I know he's at Cape Canaveral at the moment. I'm going to suggest that we meet in New York, for that will save time."

Over the meal they discussed the situation, for it was no use trying to avoid the subject that was uppermost in their minds.

"If the Director of U.N.E.X.A. agrees that it would be best to withhold all information as long as possible, what can we tell people when at last they have to know something?" asked Dr Voronoff over his coffee.

The discussion was lively, and many suggestions were put forward. But would they be believed? It was essential to tell a convincing story. Otherwise more harm than good would be done.

"Well, that's another problem for the worthy Director," M. Fouque said, sipping his second brandy.

Shortly afterwards, Dr Pointon excused himself to make the all-important telephone call. He was away for over half an hour. Then he returned to report that he was catching a plane from Heathrow at midnight. Sir William Gillanders would meet him the next morning.

Meanwhile, the astonomers' luggage had been brought to the hotel, and they could relax and enjoy each other's company. Even though they knew that Earth was doomed there was no reason why they should not take full advantage of their sumptuous accommodation. A record player was produced and in spite of their dreadful secret, they were soon dancing on the restaurant's small floor. At least the responsibility of deciding when and how and if to make a public announcement was someone else's—that of the Director of U.N.E.X.A., Billy Gillanders.

The Director's office was on the thirty-fifth floor of the United Nations Building in New York. It was an austere room. A desk laden with telephones, a swivel chair behind it, and four armchairs for visitors completed its furnishings. The Director was a little put out that he'd had to leave the Cape to come to meet the British scientist. But Dr Pointon had emphasized the urgency of their meeting, so he'd agreed, reluctantly, to return to the U.N.E.X.A. suite in the U.N.O. tower.

"Ah, come in, Frank," Sir Billy said with more heartiness than he felt, when a secretary brought Dr Pointon into the office. The two men shook hands and enquired after each other's families. It was more than two years since they had last met.

"Well, Frank, what is it?" Billy asked when the preliminaries were over and Dr Pointon was settled comfortably in one of the armchairs. The visitor came to the point at once.

"Our Earth and the Moon will be destroyed in five years' time," he announced.

Sir Billy almost laughed, but there was something in Frank's face that checked him.

"What was that you said?" he asked slowly.

Dr Pointon drew a deep breath and plunged on.

"For some reason which we don't understand, the Moon has started to spiral down towards the Earth. We had the first indication when we observed the recent solar eclipse. It began two point eight seconds earlier than predicted."

Although Sir Billy was not an astronomer this startling piece of news was not lost on him.

"Go on," he said.

"Observations, occultations and laser measurements have confirmed this. The process is continuing, and our mathematicians have calculated that the Moon will strike us in about five years' time." Dr Pointon folded his arms and waited for the Director's reaction.

Sir Billy's florid face had lost some of its colour.

"You're sure about this, Frank? Is it absolutely certain? Isn't there some possibility of error?"

"None. We have just held a symposium of twenty specialists in this field. The observations have been checked and double-checked. So have the calculations. I'm afraid there is no doubt about it, Billy. Earth is doomed to destruction in five years from now!"

The Director jumped up from his desk and paced the room. From the windows he could see the teeming New York traffic and the famous sky-scrapers. It was hard to believe that in so short a time all this would be destroyed, that the human race would be wiped out. He turned sharply on his heel and faced his friend.

"Why are you telling me this, Frank? What can I do about it?"

"All the members of our symposium are agreed on one thing. This news will have a devastating effect when it leaks out. Oh, we know it will be revealed before too long, but it has been suggested that we should endeavour to preserve people's sanity as long as possible."

"How?" The question came like the report of a gun.

"By letting people believe that there is a possibility that the disaster might be averted at the last moment," Pointon said doggedly.

"So you are saying that we should tell a gigantic lie? Then what happens when people discover the truth?"

"Well, at least they will have had many months—perhaps several years—of tolerable life. Life only becomes intolerable when there is no hope."

"But won't the shock be all the more severe when, after being fed on false hope, they find out the truth?"

"What is the alternative? That we announce now that the world is due for destruction? You know as well as I do how people will react. Many will go mad. Law and order will vanish. Civilization will crumble. At least let us preserve our dignity as long as we can."

"I don't see how we could possibly deceive people to that extent. We might delude the ordinary unscientific person. But anyone who knows anything about mechanics, astronomy or maths will not be hoodwinked for a moment. And there's now quite a large slice of Earth's population which is sufficiently well educated not to be taken in for very long."

"Well, Billy, that's the problem," sighed Dr Pointon. "My people have agreed not to tell anyone until after I have talked with you. So you think such a deception, even if you felt it were desirable, is impossible?"

"It might be done, but for a very limited period. I see the strength of your argument. But what can we tell the world?"

"Oh, you will think of something. Tell them something is being done to break the gravity tie between Moon and Earth. That we can somehow cut the Moon loose."

Sir William Gillanders stopped dead in his tracks, his face working strangely. He went to a phone on his desk and spoke briefly into it.

"Ask Mr Godfrey to come in," he said.

Four

As soon as Chris entered Sir Billy's office he detected the air of tension. He was introduced briefly to Dr Pointon.

"Frank, I've asked my Deputy to be in on this. We have no secrets from each other. But after you've told him all you've told me, I want you to repeat what you have just said."

Dr Pointon looked puzzled. He wasn't aware of having said anything remarkable just before Sir Billy had called this young man into his office. But he repeated all that he had said about the observations and the probable course of events in the next five years, and explained that he and his fellow-workers felt that a gigantic deception would be justified in order to preserve sanity and dignity for as long as possible.

Chris gasped at the news, but he had pulled himself together before Dr Pointon had finished speaking. He could only agree about the devastating effect that the news of Earth's imminent destruction would have.

"Now tell Chris the kind of deception you suggested," Billy Gillanders said.

Pointon looked blank for a second, and then, with some embarrassment, said, "Oh, it was only a suggestion. Couldn't we say that we are working on something to counteract gravity? That we anticipate being able to prevent this last disaster?"

A strange look passed between the Director and his Deputy.

"Frank, I'm going to tell you something that will startle you," Sir Billy began. "What you have said about turning off gravity isn't so fantastic as you think. Tell him, Chris."

"We have been concerned with this problem for some time," Chris explained. "Our intention is to try to reduce the fuel required to lift off a spaceship and for it to achieve escape velocity. If we could reduce the pull of gravity on our ships it would cut down their power requirements enormously. However, the problem is very complex, and our results so far are limited."

"You mean to say that you are actually trying to manipulate the force of gravity? I had no idea. What I said was just a straw plucked out of the wind."

"But quite a useful straw," Sir Billy conceded. "Assuming we agree to your proposal, I think we could certainly convince people that there is some hope of salvation—though it would be wrong to set it very high."

"Still—if you can give the world hope, and really mean it, that's wonderful," Dr Pointon burst out. "Will you do it?"

"I must think about it," answered the Director. "How many people know about what you have told us?"

"There are twenty of us," Pointon answered. "I have a list here, and my colleagues have all agreed to remain in the Hilton Hotel and see no one else until I return. After that they will insist on going home."

He passed a slip of paper to Sir Billy, who glanced at it and handed it over to Chris. The Deputy's attention was very much more concentrated, for almost at the head of the list was the name of Kathleen Benson!

So Kathy was in on this! She must have known about it when they met a few days ago. No wonder she had looked distraught both on the plane and when they were having a meal with Morrey. He remembered how strangely she had looked at him when he had remarked that her punctuality was usually equal to that of the heavenly bodies she spent her life in studying.

"I know Miss Benson," he said. "In fact, we were dining together a few nights ago. Morrey was with us. I had no idea she was hiding such a tremendous secret."

"No, our people have been very loyal," Dr Pointon declared. "We all realize the effect of a premature revelation. Now I come to think of it, I believe it was Miss Benson who suggested that we pass the problem over to U.N.E.X.A."

While Dr Pointon and his Deputy had been speaking, Sir Billy's mind had been racing furiously. He did not doubt the accuracy of the prediction Frank Pointon had made. Nor had he any illusions about what would happen when the world got to know about it. He agreed that the onset of chaos could be delayed if people were given hope. But was it quite honest to give it?

Because U.N.E.X.A. was responsible for providing the money for many branches of research, Sir Billy had a unique knowledge of what was going on in the scientific world.

Some twelve months before a report had come to him about the work of a retired university professor. Dafydd Evans had been teaching high energy physics to under-graduate and post-graduate students at Aberystwyth University for over twenty-five years. He had always been a difficult character to work with, but his colleagues had to admit—perhaps reluctantly—that he was brilliant on his subject. Now that he was retired he was free to devote himself to a line of research that had intrigued him for many years. It was the counteracting of gravity by an electrical field.

As he'd been particularly busy when the news had come in about Professor Evans's experiments, the Director had requested Chris to investigate them. If there was any substance in the report, it could be very interesting for U.N.E.X.A. It was still a very costly business to blast a ship through Earth's strong gravitational pull.

Chris visited Aberystwyth and after some difficulty he located the old scientist, who lived in a big grey stone house some four miles from the town centre. His reception was chilly, but his persistence was eventually rewarded by a sight of the Professor's laboratory. Evans had demonstrated to him how a heavy weight, suspended on a spring balance, apparently became lighter when an electrical field was set up beneath it. When the field was switched off the weight returned to its normal mass and the spring balance again gave a true recording. The Professor was careful to explain that the weight was non-magnetic, so that magnetism played no part in this phenomenon. He had, he insisted, created an invisible gravity shield with his electrical field. But when Chris tried to find out more, the old man became taciturn and eventually ordered him to go away.

Letters inviting the Professor to give a demonstration to a selected audience were ignored. Then Chris made a second visit, but an elderly housekeeper informed him that Professor Evans was away from home and she didn't know when he would be back. Chris reported his lack of success to Sir Billy, who accepted the situation philosophically. It was probably only a matter of time before some more co-operative researcher would achieve the same results. Nevertheless, Chris thought, it was a pity that the old man couldn't be persuaded to reveal his secrets. It could have saved U.N.E.X.A. untold billions of dollars.

Memory of the work of Professor Evans came flooding back to both Sir Billy and to Chris. The old man had succeeded where, so far, their own researchers had failed. It was imperative, now, that he should be persuaded to help. If his electrical field could be developed it could provide the salvation that they must so desperately seek.

They told Dr Pointon about Professor Evan's experiments and the difficulty of getting any information out of him.

"But he must be made to tell us his secrets," Pointon burst out. Surely he'll help when he knows that the fate of the whole Earth is at stake?"

"I wouldn't be too sure about that," Sir Billy sighed. "From what Chris says, he's a very difficult old man. He may think that the world deserves to be destroyed. Or that at least it will see his time out."

"He must be made to talk," Pointon insisted.

"We must handle him carefully," Chris said thoughtfully. "We certainly cannot use any strong-arm methods on him. He's rather frail and we might easily kill him if we get too tough with him. I think we should put the situation to him and pray that he sees reason."

"Then that's a job for you, Chris. None of us have met him, and you have. Pack your bags and root out the old boy as quickly as you can," Sir Billy ordered.

"Promise him anything you like," Dr Pointon suggested. "Tell him that the resources of the whole scientific world will be at his command if he will help."

"I'll try," Chris promised, "but it's not going to be an easy job. I can travel back to London with you right away, Dr Pointon."

"Would either of us be of any help, do you think?" Pointon asked.

"I doubt it," the Deputy replied. "If he thinks he's being 'crowded' he'll go into his shell and nothing will budge him."

"Chris, this is the most important assignment you've ever had," Sir Billy said solemnly, laying his hand on his Deputy's shoulder. "We can only pray that you will succeed. I don't say that we shall be able to develop the Professor's electrical field sufficiently to stop the Moon, but at least we shall be able to tell the world, in good conscience, that we are trying. That will, as Dr Pointon says, give us a breathing space."

"Will you give some thought as to how best to reveal what we know?" Pointon asked. "It will want very careful planning.

I doubt whether we can keep the Moon's behaviour secret for more than another fortnight."

"Our people in Lunar City will know about it before that," Chris observed.

"I'll get Morrey Kant to go along to alert and warn them," the Director said thoughtfully. "We may yet need a great deal of help from them. Certainly I'll see that all messages from Lunar City are monitored."

"What about my colleagues in the Hilton Hotel? Will it be advisable to release them?" asked Pointon.

Sir Billy frowned thoughtfully.

"If you can keep them together until Chris has managed to persuade the Professor to co-operate, it will be better," he answered. "If we can start work on the old man's force field we can release both your friends and the news."

The members of the symposium had enjoyed their enforced leisure for just two days when their leader returned. With Dr Pointon was a young man whom Kathy recognized immediately.

"Chris!" she called out in surprise. Formal introductions followed all round, and then Pointon explained Chris's presence.

"So Sir William feels that the only person who may persuade Professor Evans to help us is Mr Godfrey. We must all hope he will be successful."

Chris went over to have a word with Kathy.

"Now I know why you weren't yourself the other evening," he said with mock severity. "Feel better now?"

"Somehow I feel quite light-hearted," she confessed. "I know I shouldn't, with this awful thing hanging over us. But if there really is just a chance of something being done then it will lift a load off my mind."

"That's what we think will be the universal reaction," Fred observed. He would be more than a little sorry when the symposium party broke up. Still—he had Kathy's address and he didn't intend to let their friendship fade away. So it was Fred who agreed enthusiastically when Chris suggested that they might all stay together for another twenty-four hours to give him a chance to talk to the old Professor.

"Meanwhile," he told them, "my chief is working out the best way to break the news if I succeed. And also if I fail."

"Do you want anyone to come with you?" Dr Pointon asked.

"No, I'm sure it would scare off the old boy if a stranger confronted him. Can I have the loan of a car to get to Aberystwyth?"

"That is easily arranged. Miss Laurensen, could you order coffee while I phone for a car?"

It was not only Kathy who was relieved that there really might be a chance of saving the Earth. All the others caught the mood and soon the whole company were talking excitedly. Rivers of champagne could not have loosened their tongues more. It was Chris who had to sound a note of caution.

"Even if I can persuade Professor Evans to work with us, there is no certainty that we can use his electrical field to achieve our objective," he told them. "It will be a tremendous task to organize and construct anything on a sufficiently large scale to be effective. There may be technical difficulties impossible to overcome. I know five years sounds a long time, but my guess is that we shall have to do it much sooner than that. Otherwise the approach of the Moon may prove irreversible."

That did sober the scientists a little. But surely the old man would agree to reveal his discoveries when he knew that the future of civilization, of the Earth itself, was at stake. Once he had consented to work with U.N.E.X.A., the resources of the whole world could be geared to save itself.

Dr Pointon came back into the room.

"A car will be here in ten minutes," he said. "Do you wish to drive it yourself?"

"Certainly," the Deputy told him. "I don't want even a chauffeur to appear. That would make my visit look too official. Until I can get really talking to him, I want Professor Evans to think my call is quite casual."

By the time Chris had drunk his second cup of coffee the telephone rang to say that a car had arrived for Mr Godfrey.

"Right, I'll get off at once," Chris said. Everyone in the room wished him luck and shook his hand.

"I'll want all the luck you can wish me," he grinned as he moved towards the door. "I'll be back as soon as I can."

Five

Providence smiled on Chris, for as he stopped the car outside the grey stone house he saw his quarry. Professor Evans was on the front lawn. He appeared to be bending over an old motor mower. Chris got out of the car and walked through the gate.

"Good afternoon, Professor Evans," he called. "Having trouble with your mower?"

The Professor looked up and saw Chris. His eyes narrowed with suspicion.

"What do you want?" he demanded. "Can you not see that I am busy?"

"That's all right, sir," Chris smiled. "I was in the town and I thought I would call and pay my respects. Can I be of help?"

"Do you know anything about these damn things?" Dafydd asked, wiping his dirty hands on a piece of rag. "Had it done up less than three years ago, I did. That ironmonger is a robber, that's what he is. Charges me four pounds, and now the damn thing won't work."

Chris, without waiting to be asked, bent over and examined the machine. He smiled to himself with relief. The Professor might be a genius on high energy electrical fields, but he knew little about petrol motors. All that was wrong with this machine, Chris saw, was that its single sparking plug was filthy and covered with oil.

"I think I can put this right for you, sir," he said. "May I borrow some spanners?"

"You can put it right? Very well, but I'm not going to pay you, young man. If you want money go to Griffith the ironmonger and tell him Dafydd Evans sent you."

Chris picked up a bundle of spanners that the old man had been using, selected one, and unscrewed the plug. As he thought, the point was very dirty and refusing to spark. He wiped away as much of the oil and dirt as he could and then turned to the Professor.

"Have you a gas cooker in your house?" he asked, and was told that there was one.

"May I use it for a few seconds?"

The old man nodded and led the way round the back of the house to a huge stone-floored kitchen. Chris went to the cooker and lit one of the rings. Then he held the point of the plug in the flame to burn away the remaining oil. He twisted it round and round until it was burnt clean.

"That should do it," he declared.

They returned to the lawn and Chris screwed back the plug and connected the lead.

"Now let's try it," he said, hoping that it would work. He gave the starting cord a strong pull and the engine spluttered encouragingly. On the third pull Chris was relieved to hear it burst into chattering life.

"That's very kind of you, young man," the Professor said, "but I'll not pay you."

"That's all right, sir. I don't want anything. It didn't take ten minutes. May I finish off the lawn for you?"

Before the Professor could say yea or nay Chris had started up the mower and continued cutting the grass where the old man had left off. Twenty minutes later the lawn was finished and the cuttings piled on the compost heap.

"You must come in and have a cup of tea," Dafydd said. "Now don't say 'no' or I'll be offended."

"I could just do with one," Chris smiled, "and could I wash my hands?"

Dafydd looked at his own soiled ones.

"Of course," he replied, "and I'd better wash my own, or Olwen will chatter to me."

As they went inside the house again Chris saw the dour housekeeper who had turned him away on his last visit. He couldn't quite make up his mind whether the scowl on her face was for his benefit, or whether it was her natural expression.

"Olwen, this young man—sorry I've forgotten your name, boy—is having a cup of tea with me. We'll have some of your scones with jam and a lump of cream," the Professor said, staring at the formidable woman.

For a few seconds their glances clashed, but in the end Olwen, probably muttering something under her breath, turned sharply away.

"Er—my name is Chris Godfrey," the Deputy reminded his host when they were alone. "I work for U.N.E.X.A."

"I remember," Dafydd Evans said. "You were one of those astronauts, weren't you?"

"That's right, sir, I've made many space voyages, but now they have given me an office job. But I still get around a bit. Have you done any more work on your anti-gravity field?"

For a moment the old man seemed to go into his shell at Chris's question. Then he shrugged and replied "Some."

"You were good enough to show me your laboratory the last time I met you. Would it be asking too much if I had another peep before I go?"

"Now you're being polite, young man. I don't suppose you're really interested in the work of a forgotten professor."

"On the contrary, sir," Chris assured him. "I happen to believe that your work is very important and could have great practical application. In fact, when we are in your lab. I'd like to have a talk with you about it."

Professor Evans suddenly flashed a suspicious glance at his visitor, but the housekeeper came in with tea and scones before he could make any comment.

While they ate and drank Chris talked freely about U.N.E.X.A. and its programme and described some of its latest work.

"That shows what you can do, boy, when you have bucketfuls of money," Dafydd said enviously. He'd been interested and any ill humour had vanished.

"Oh, we've been very lucky in the past, Professor," Chris admitted. "But things are much tighter now. People have to be scared before they loosen their purse strings."

"Do you know how much the stuff in my lab. cost?" Dafydd asked, leaning forward confidentially so that Olwen, flitting about in the background, couldn't hear.

"I wouldn't know," Chris confessed.

"Less than one thousand pounds," the old man declared, and with a note of defiant pride added, "And every penny out of my own pocket."

"That's wonderful, sir. But I don't suppose you have counted the hours and hours of labour you've put in."

Professor Evans seemed to withdraw into himself. He was thinking back over those years of toil, of sweat, and of much frustration. His face smoothed out and, occasionally, his mouth would twitch into the ghost of a smile as some particular incident or triumph returned to his mind. At last he pulled himself together and turned to Chris.

"You were saying, young man?" he asked sharply, as if to make up for his moment of gentle reminiscence.

"I was thinking, Professor, just what you might have done if you'd had all the funds and facilities that we have."

Dafydd's eyes became dreamy and Chris wondered to just what heights his mind was soaring. If he could be persuaded to work for U.N.E.X.A. the resources at his command would be unlimited.

"But I didn't, did I?" the old man sighed. "And now it's too late to dream any more."

Chris wondered whether this was the time to take the plunge. Should he now blurt out the real purpose of his visit—was the old man ready yet?

"What about that peep into your lab., sir?" he asked, still putting off the moment of decision.

"Not until I've fed my birds," the Professor said surprisingly. "Olwen, bring me the bread-crumbs."

The housekeeper, sniffing disapproval, appeared with a bowl of crumbled bread and crusts.

"That's all I have," she snorted. "It's a waste of good bread on those thieving creatures."

"She always carries on," whispered Dafydd confidentially. "Anyone would think it was she who paid for the loaves."

The old man, with Chris following, went out to the recently cut lawn. In the distance Chris could see the town of Aberystwyth, and beyond that glistened the sea. Over to the left was the Professor's beloved University, home of one of the finest collections of books in the world.

Dafydd scattered handfuls of crumbs over the grass, and soon birds came fluttering down from surrounding trees. Some strutted boldly up to the old man. A few even took the bread from the palm of his outstretched hand.

"There," he said to Chris triumphantly, "it's taken me years to get them to do that. Now they are my friends."

At last the bowl was empty and the Professor left his feathered companions with evident reluctance. Some of the more greedy, ever hopeful, followed the two towards the laboratory. Dafydd took a huge key from his pocket and unlocked the door noisily.

"It's a bit dusty," he apologized. "I haven't spent much time in here lately."

While the old man fussed about, starting up generators and throwing switches, Chris gazed round, fascinated. Did there lie in this conglomeration of cables, coils and dials the salvation of the world? How could the work of Dafydd Evans be used to halt the Moon on its disastrous course? He seemed to be establishing a degree of friendship with the Professor, but would that be strong enough to stand the shock when Chris revealed his true purpose?

"When you came before, young man, can you remember by how much I reduced the mass of this weight?"

"If I remember rightly it was by roughly twenty-five per cent," answered Chris.

"Then watch," Dafydd ordered as he switched on his electrical field. There were crackles and sparks, but the dial of the spring balance moved. The Deputy did a quick calculation on the back of an envelope that he fished from his pocket.

"Good gracious, Professor," he burst out, "you've cut the mass by forty-seven per cent!"

The old man grinned like a delighted schoolboy.

"That's shaken you, hasn't it, young man?" he laughed.

"Indeed it has, sir. Have you gone to the limit yet?"

"With this junk—yes. But my calculations show that, theoretically, it should be possible to eliminate at least ninety-eight per cent of the Earth's gravitational pull."

"That's fantastic, sir," Chris gasped as the Professor went round switching off the generators.

"Can't keep things running for too long," he explained. "The cables get overheated."

Chris looked at the spring balance again to check his figures. There was no doubt about it. The old man had succeeded in reducing the pull of gravity by almost a half!

As they came from the lab. Dafydd turned to his visitor.

"Well, young man, I expect you'll be wanting to get on your way. I'll walk to the gate with you," he said.

Chris's heart began to thump. The crucial moment had arrived.

"Er—Professor," he began, halting just outside the laboratory, "I wonder if I might have a talk with you before I go?"

Dafydd flashed him a glance.

"Well, boy, what is it? I don't want to stand out here all evening."

"I'd rather say what I have to out here if you don't mind, sir. With all due respect to your housekeeper, she mustn't hear a word of what I'm going to say," Chris said earnestly.

Again a piercing look. Was it curiosity or suspicion?

"I bring to you a very great secret, Professor," Chris plunged on. "It is one that is known to fewer than two dozen people on Earth. I come at the express wish of my Chief, the Director of U.N.E.X.A. We want your help."

"To save money on the launching of your confounded spaceships? Not a chance, boy. Go back to Sir Thingamybob and tell him that the work of Dafydd Evans is not for sale."

"You're wrong, sir, absolutely wrong. It is something immeasurably greater, infinitely more vital than launching space probes, for which I seek your aid. We believe you can help to save the future of the world," Chris said breathlessly. Had he been too precipitate?

"Young man, I know I'm old—old enough to be your grandfather. But I am not yet senile. You come here uninvited, I give you hospitality and in return you try and make fun of me, turn me into an object of ridicule. No doubt you would have a great laugh telling the tale to those dude scientists way back in—wherever it is you come from. Now get off with you, or I'll show you that I'm not decrepit yet."

So saying, Dafydd seized a hoe that was leaning against the wall of his lab. He held the implement menacingly, so that Chris could have no doubt that the old man could, and would, use it to force him on his way.

"Sir," Chris said desperately, "I'm not trying to ridicule or deceive you. I have too much respect for you and admiration for your work to do that. What I am saying is literally true. Listen to me for just five minutes, Professor, and if at the end of that time I haven't convinced you, then you can beat me with that hoe as much as you like."

"I'll give you just one minute, you young jackanapes," Dafydd growled. "And don't think I won't use this hoe on you. I certainly will."

"Yes, sir, I'm sure you will," replied Chris hurriedly. He had sixty seconds to convince the old man of the urgency of his mission and to enlist his help.

"Here goes, then, sir. There was a solar eclipse three weeks ago. It came earlier than predicted. This surprised and worried a number of eminent astronomers and further observations were taken. A symposium has just been held in London to discuss the situation. It has come to the startling conclusion that the Moon is on its way down to strike the Earth. It will do so in about five years' time. Then both the Earth and the Moon will be shattered to fragments. The human race will be wiped out."

As Chris had been speaking with all the earnestness at his command, Evans had gradually lowered his hoe. He could see, even in the fading light of a Welsh evening, the perspiration on this young man's face. And he did not appear to be the type to play practical jokes on an old man, as had some of his former students.

Daffyd flushed as he remembered with bitterness how some of the young men with whom he had tried to share his knowledge had been interested only in trying to enrage their old tutor. But those days were over now. He'd finished with lecturing and would never be made fun of again. Or would he?

"If this is true, why are you telling me?" Daffyd demanded, and Chris was relieved to see he was a shade less belligerent.

"Because you may be the only person who can stop the Moon. You have discovered the only means of doing this. May we discuss your researches with you to see if they can be adapted to save the world? I'm fairly certain that they can. Professor Evans, will you help to save mankind?"

The old man had rested the hoe on the ground and was leaning on it. As he listened to Chris's incredible story his face hardened. When Chris put his vital question it was plain that he had failed. Dafydd threw down the hoe and stared at his visitor with hostility.

"No. I will not help you."

Six

Chris felt utterly defeated. He had expected the old man to be difficult and suspicious. But he appeared to be convinced of the accuracy of Chris's story and he hadn't questioned the ultimate outcome. Yet he was refusing to help. Did he want to see the Earth shattered?

"But, sir, you can't be serious. The world is going to be destroyed. We are all going to die. I have made that clear, haven't I?"

"You have made that perfectly clear," Dafydd replied, "and I believe you. But I want to make my position equally clear. No one is going to use my electrical field to save this miserable world."

A chill struck at Chris's heart, and then anger welled up inside him.

This old fool must be made to give up his secret. What was he, compared to the lives of thousands of millions of people, and the continued existence of a civilization that had been painfully evolved over so many millennia? Chris conquered his anger and despair, and continued his efforts.

"Professor Evans," he said, speaking as calmly as he could, "it may be that we couldn't develop your experiments sufficiently to have any real effect. It may be that no matter what we do this Earth is doomed. But at least give us the opportunity to try. And if we did succeed, think of the countless millions of people whom you would have saved. Does this mean nothing to you? What about your own life—you will die with the rest of us?"

"Young man, did you say 'five years'?" Dafydd asked. "Then it will not matter to me. I shall not last another five years. Oh, I know that to be a fact. So, you see, whether the world survives or not, it cannot make any difference to me personally."

"But think of the men, the women, the children who will die if Earth is destroyed. Innocent people, good people, all will go."

"Look, young man, if the Good Lord has decided to destroy the Earth and all that therein is, who am I to try and interfere with His will? Maybe the Supreme Intelligence has decided that the experiment of populating this planet has failed. I am prepared to leave things to His infinite wisdom."

"But that same Supreme Intelligence has also guided your researches," Chris pointed out desperately. "May there not have been a great purpose in so doing?"

"Christopher—that is your name, isn't it?—there is a great deal of evil in this world. People are greedy and selfish. Nations are continually at war. Many governments are corrupt. Many politicians are self-seeking. The world deserves to be destroyed."

"What about the ordinary people, sir? The children and the really good people? Would you condemn the innocent to death also?"

"What is to be—will be. And who am I to interfere?" the old man asked. He was showing signs of weariness, but Chris couldn't spare him.

"If you were a surgeon, sir, and had the ability and skill to save even one life, would you not use it? If you refused, what would you be guilty of?"

"I'm not prepared to argue any more, boy. I'm getting tired. Run along now and leave me in peace."

Chris knew that he had failed. The Professor had not been persuaded. Was there nothing more he could do? An owl hooted in the growing gloom.

"What a pity," the young Deputy said softly. "That owl, your bird friends and all living creatures will perish with the rest of us."

In all his life Chris had never known anything so tense as the long silence that followed. In these moments the fate of the world hung in the balance. Then the old man let out a deep sigh, a groan even, and at that precise moment something happened that, as Chris later believed, altered the whole situation. A black and white cat came from behind a nearby tree. Purring loudly, it began to rub itself against Dafydd's leg. The old scientist bent down and fondled the animal's ears.

"Morgan, you old rascal," he chided, "you have been eavesdropping."

"Miaow," Morgan admitted, and continued to add his persuasion to that of Chris.

"I cannot let my birds and animals die," the old man mumbled.

Chris held his breath. A word now, and all might be lost. He tried to still his racing heart as he waited.

"What do you want me to do?" Dafydd asked in a hoarse whisper.

"Could you please come back to London with me, Professor?" Chris asked, scarcely daring to breathe.

"Go to London? Now?"

"If you please, sir. There is not an hour or a minute to lose. I want to take you to the Hilton, where the members of the symposium are anxiously awaiting the outcome of my mission to you. Once you have met them we can set things in motion. Can you pack a few things, sir?" Chris asked.

The Professor's mood seemed to change. Now that he had agreed to work with this persuasive young man and his friends, he might as well go the whole way.

"I expect you will want me to bring my notes, won't you?" he asked, and Chris thought he saw the trace of a twinkle in his eye.

"Of course, sir, and let me say this. We will never forget that they are your notes and nothing will be done with them without your permission."

"That's good enough for me. Better come into the house with me, young Christopher, while I break the news to Olwen. She won't be pleased," Dafydd said with a grin. "Come along, Morgan."

"Good for you, sir," Chris grinned back as the Professor, the cat and he went in procession back to the house. Perhaps the old boy was beginning to enter into the spirit of the thing. If so, his co-operation would be all the more ready.

"I'm off to London," Dafydd called out loudly as they entered the kitchen. "I'm going tonight with this young man."

Olwen had been listening to a very old-fashioned radio, which she switched off carefully. Morgan continued to rub himself against the Professor's legs.

"Did you say you were going to London?" she asked, her eyes blinking angrily behind her steel-rimmed spectacles. "Are you mad, Dafydd Evans?"

"That's none of your business, woman," the Professor retorted. "Now find my case while I sort out a few things."

Before Olwen had time to reply he had hurried out of the kitchen and could be heard mounting the creaking stairs. Chris was left to face the wrath of the housekeeper.

"He's gone crazy," she stormed. "What will he do in London? He's not been there for years."

"I'll look after him," Chris assured her, but she turned on him fiercely.

"This is all your fault," she shouted. "It is you who have enticed that old idiot to go to the Wicked City. Well—he can go to the Devil himself for all I care."

With a snort she flounced out of the kitchen, and Chris gave a whistle of relief. After a few moments he switched on the old radio for want of something better to do.

There was a news bulletin, and the Deputy listened while a few thumps from overhead implied that Dafydd was busy gathering together his belongings. Then Chris's attention became focused on the closing headlines of the news bulletin.

There had been a tidal wave in Australia and several lives had been lost. Reports were just coming in of a serious earthquake in Peru. A Member of the House of Commons had been killed in a road accident, and French students had thrown eggs at their Prime Minister.

A tidal wave! And that earthquake! Chris had no doubt that these were the first effects of the approaching Moon. As the satellite drew nearer its disruptive influence on Earth would vastly increase. People would soon begin to ask the reason for these phenomena and it would be difficult to keep the real cause a secret for much longer. He wished the Professor would hurry with his packing. It might well be that every minute would count.

After what seemed an age Dafydd came struggling into the kitchen with a very old, very battered leather case, and Chris hurried forward to relieve him of his burden.

"Just a minute, Christopher. I have to get my notes," the Professor said a trifle breathlessly.

Yes, we mustn't forget the notes, Chris told himself. On them the whole future might depend. Dafydd, now garbed in a flowing black cape, reappeared with a surprisingly new briefcase. With a wink at his young companion he called back up the stairs.

"Lock up the house if you want to, woman. I do not know when I will be back," he shouted. Then he turned to Chris.

"Quickly, before she comes down," he said, and with a wide grin he led the way out of the kitchen, down the path and towards the gate.

It was almost dark now, and Chris looked around the peaceful scene. The lights of Aberystwyth twinkled in the distance, the faint sound of a faraway ship's siren floated through the evening air. Chris put the case in the car boot, but Dafydd insisted on holding the briefcase himself.

The Deputy had opened the passenger door for the Professor when, in a flash, Morgan beat them to it. The cat had followed them silently and now jumped into the car, determined, it seemed, to accompany his master. Chris paused uncertainly.

"We can take Morgan with us, can we not?" asked Dafydd. The situation was still too delicate for the Deputy to take any risk.

"Of course," he agreed.

During that long drive Chris told the Professor all he knew.

"I don't know that I can be of much help," mused the old man, gently stroking the contented Morgan, who had settled on his lap. "Do you expect my few pieces of twisted wire, decrepit generators and erratic instruments to save the world?"

"Not exactly," Chris smiled, "but they have shown us what can be done. The technology and resources of every nation will be harnessed to build a sufficiently large and powerful field. That is how we hope to loosen the pull that is dragging the Moon down on to us. Oh—would you like to stop for a coffee?"

"Certainly. And I expect Morgan will want to stretch his legs," Dafydd replied.

But the black and white cat did not. When they pulled up at the next café Morgan was content to curl up on the Professor's seat and go to sleep.

In the café Chris saw a phone box.

"Oh, I'll let Dr Pointon know we are on our way," he said. "I won't be a minute."

So Chris told Pointon how he had eventually persuaded the old Welshman to come along with him. They hoped to arrive, complete with notes and a black and white cat, at the Hilton in just under two hours.

"A black and white cat?" Chris heard Pointon gasp over the phone.

"Yes. You'll like Morgan," the Deputy laughed back. "In fact, I have an idea that he's going to be very important to us."

When Chris returned to the table he immediately sensed a change in Professor Evans. The old man stood up. His face was set grimly.

"Christopher, I cannot go on. You must take me back at once," he said sharply.

The Deputy was utterly dismayed. Had all his efforts been brought to nought? What had happened during those brief moments to make the Professor change his mind? How could he now tell Dr Pointon and Sir Billy that he had failed after all? He should not have left the old man alone.

"What—what's happened? You can't mean you're not going to help us?" Chris gasped.

"Not help? Don't talk rubbish, young man. I said I would—and I will. But I've just discovered that I left home without any money. I must return for some," Dafydd declared.

Chris didn't know whether to laugh or cry with relief.

"That's all right, sir, I've been told to pay for everything. You won't need any cash. U.N.E.X.A. will look after us. And —" confidentially—"it's paying for all the people you're going to meet at the Hilton."

It took a few more soothing words from Chris to convince the old man that he was to worry about money no longer. When they reached London he could draw as much cash as he wanted. Meanwhile would he like another cup of coffee? But Chris was relieved when Dafydd declined, for he was anxious to get to the end of his journey.

They returned to the car and Morgan expressed his disapproval of their absence. However, he soon forgave them and spent the rest of the journey on his master's lap. Glancing sideways at the animal Chris wondered what they would do with him. He couldn't remember seeing any other cats at the Hilton Hotel. But ninety minutes later the issue was settled. After putting his car in the underground car park Chris took the Professor's bag and led the way to the foyer. Dafydd, clutching his briefcase, came next, while Morgan followed sedately in the rear.

An under-manager conducted them at once to the lift and they were whisked up to the reserved floor, where all the members of the symposium awaited them impatiently.

Seven

It was three o'clock in the morning before the gathering broke up. Some half an hour before Professor Evans had been persuaded to go to the room that had been reserved for him. He had been talking almost non-stop, after his introduction, expounding his theories and answering questions. Chris saw that he was tiring, so Dr Pointon agreed to release him and wished him a sound night's sleep.

"Morgan, where are you?" the old man called as he prepared to go off to his bed. But no Morgan ran to him.

"I'm afraid he seems settled here, Professor," Kathy Benson said. Sure enough, the black and white cat had settled himself firmly on her lap and refused to leave it.

"Faithless creature!" chided Dafydd. "He was ever one for the ladies, was Morgan. Don't trust him, Miss Benson."

After the Professor had retired Chris put through a phone call to New York. Sir Billy had been awaiting it impatiently, for he, too, had realized the significance of the tidal wave and the earthquake. These, together with freak weather conditions, would soon cause people to ask questions.

Chris told his Chief that he'd succeeded in enlisting the help of the Welshman, and that Dr Pointon and the others had had a long talk with him. However, Chris was the first to admit that none of the members of the symposium was qualified to assess whether the electrical field would be effective or not.

"Get him over here as soon as you can," Sir Billy ordered. "I'll have an international team of experts lined up by the time he arrives."

They spoke for several minutes more, and then Sir Billy came out with a startling idea.

"I've been thinking," he said, "about how we might begin to prepare people for the news. Also I've been wondering if we could get a foretaste of how they might react, and I think I've hit on a way to find out. Get hold of a science fiction writer and persuade him to rush through a book describing a collision between Earth and Moon. Get a publisher to print the book in double-quick time and then we'll carefully monitor the reaction of the critics and the general public."

"Gosh," gasped Chris, "you're asking something. Do you want me to tell the writer the truth?"

"I'll leave that to you," Sir Billy chuckled, "but get weaving, Chris. Get weaving."

It was certainly a novel idea—to present the situation as if it were a science fiction story, and to await the reaction of the public and the literary critics. But whom should he ask to write the story? And should he tell the truth to the author?

There was only one S.F. writer whom Chris knew personally. He was a portly, middle-aged man who had always displayed a boyish enthusiasm for space stories and speculation about U.F.O.s. He had consulted Chris several times on technical details, for Wally Hughes liked to make his stories as accurate as possible. Chris decided to contact him early next morning and invite him to do the job. Meanwhile he had to get Professor Evans over to U.N.E.X.A., and to Sir Billy. Who better to accompany him than Kathy Benson on her way home?

Presumably the members of the symposium could now return to their homes. Provided each gave a solemn undertaking to keep silent about what they knew, and to leave the breaking of the news to U.N.E.X.A., Chris saw no useful purpose in detaining them at the Hilton. Dr Pointon agreed. Before he went to bed, Chris looked up the telephone number of Wally Hughes.

The meal next morning was a lighthearted affair. No casual onlooker would have guessed that these men and women shared such a dread secret, and that failure to keep silent about it would mean the end of life as we know it. The astronomers themselves were much cheered to know that there was at least a ray of hope.

They were all anxious to return home, and they felt that they now had the fortitude to keep their knowledge to themselves. So this breakfast was a farewell meal. They were departing in their several directions, and no arrangements had been made for them to meet again.

"Never mind, Kathy. We're neighbours," grinned Fred Lodes.

"Sure—if you call being two thousand miles apart being neighbours," she laughed.

But there was a last-minute hitch in the plans of Chris and Dr Pointon. Dafydd firmly refused to fly to New York without Morgan. In vain did they try to explain to him the laws of quarantine. The old man was adamant. No Morgan—no Dafydd Evans.

Dr Pointon made some frantic telephone calls to the American Embassy. Finally it was agreed that the black and white cat should be examined by one of the Embassy's own vets, and if he had a clean bill of health he could accompany his master into the States. So Kathy went with the Professor by taxi to Grosvenor Square, while Morgan continued to protest at being confined in a basket during the journey. A thorough examination, lasting for over an hour, made the old man happy. Morgan was a healthy animal and could go along with him.

Meanwhile Chris had contacted Wally Hughes. The writer was surprised to get the call, for it was usually he who rang Chris for information.

"Can you come to the Hilton at once? I've a special job for you, Wally," Chris told him.

The writer was unable to extract from the Deputy what it was all about, so there was only one way to find out. He took a taxi to the Hilton Hotel.

"Chris, this is an unexpected pleasure," Wally declared as he shook hands with his friend. "Now what is this job you want me to do?"

It was scarcely ten o'clock, so the Deputy led Wally to a secluded corner of the lounge and ordered coffee.

"How are things with you?" Chris asked as they waited for their order to arrive. "Are you at work on anything at the moment?"

"I'm always at work. Actually I'm half-way through my eighteenth. Some of the stuff you have given me is in it, and I'm grateful to you Chris."

"That's all right. Always glad to be of help. But now I want you to help us. We want you to write a book and we'll furnish the plot. Will you do it?"

" 'We'? Who's 'we'?"

"Let's say it's some friends and I. We have a special reason for wanting this book to be written, so I thought of you at once."

"I'll have a go, Chris. I'll be through with my present book in a couple of months. Then I shall be looking round for my next plot."

"That won't do, Wally. We want you to drop all your present work and write this book for us as a matter of urgency. But let me put you a little more into the picture. U.N.E.X.A. is behind this idea. As you know, besides being concerned with space exploration we dabble in many other kinds of research, including that of human behaviour. Because we have to train astronauts and staff for space and lunar stations, we are always seeking to learn more about what people will do under certain circumstances. This is where we want your help."

"Tell me more."

"It's quite simple, really. We want you to write a book using the circumstances I'll describe. Then we want to study the reactions of the critics and public to your story."

"So you want to use me—or rather my story—as a guinea-pig?"

"Something like that. But we think it's important, and if you won't do it, Wally, I've got to approach someone else."

"Hold your horses, Chris. I haven't said I wouldn't do it. In fact I'll start on it as soon as I've completed the job I'm on."

"That won't do, Wally. We want you to drop everything and work—literally—day and night on the story. We've got to make this experiment quickly, so we want to get the book published as fast as possible."

"You don't stand a chance. There's a delay of at least twelve months between the completion of a book and its publication. Authors have to wait in a queue, you know, for publishers to produce their work."

"This will be different," Chris promised. "We'll persuade your usual publishers to get your book printed at once. It could be on the bookstalls a month after you've finished it."

"I don't believe it!" Wally gasped.

"It's true. We have influence. Now will you have a go?"

"Sure—if it's that important. But you haven't yet told me the story you want me to put over."

"We want you to imagine that something has disturbed the Moon, and that its orbit is beginning to contract. Eventually, say in four or five years, it will hit the Earth and both will be destroyed. We want you to describe what you think would be people's reactions under those circumstances, and then we want to see if the critics and the public generally agree with you."

"Whew! That's some story! Whoever thought that one up?

Wish I had myself. And you want me to drop my present book, work like mad on this new story, and you'll get it published in record time?"

"That sums it up exactly, Wally. Will you have a go?"

"Why not? It's a great story, and I'll enjoy working out the details. By the way, did you know that some years ago there was a broadcast in America of a radio version of H. G. Wells's story, *The War of the Worlds*? It was put over so realistically that people thought it was really happening. Quite a panic!"

"Yes, I knew about that. It provided a useful study in human behaviour."

"Well, thank goodness no one will panic at my story. I take it that you'll fill me in on any technical stuff that I should know?"

"Sure. Haven't I always?" Chris smiled. "Now get cracking, Wally, will you?"

"As soon as I get home and put a fresh piece of paper in my typewriter. What do I do when it's finished?"

"I'll be in touch," Chris promised. "Now I'm off to see your publishers, to twist their arms. Then I'll do the same to your American publishers. Off you go, Wally. You ought to have a chapter done by now."

The writer took his leave. Here was a good story Chris had given him, and he was already planning how to treat it. It would be interesting to speculate how people would behave in the event of such a catastrophe. Human nature was unpredictable under most circumstances. But would it react in a set pattern at the prospect of annihilation? Would certain mechanisms be brought into play to protect the race against mental breakdown?

The more Wally thought about it, the more interested he became in the task that Chris had set him. Only occasionally did he let himself speculate why U.N.E.X.A. wanted this done. Well, if Chris could succeed in persuading his British and

American publishers to let him jump the queue, who was he to complain?

Mr Charles, one of the directors of Wally's British publishers, was equally intrigued when Chris made his request. Politeness prevented him from questioning the motives of his caller, especially when Chris said that U.N.E.X.A. would underwrite the book.

"How quickly can you get it into print?" the Deputy asked.

"If Mr Hughes will let us have it in chunks of, say, ten thousand words at a time, we'll get it set up in print as we go along. I'd say we could publish in about three weeks after receiving the last block of manuscript."

"Make it two and I'll buy the first hundred copies to present to my friends," laughed Chris, and Mr Charles promised to do his best.

It was early evening when Chris, Dafydd, Kathy and Morgan boarded the U.N.E.X.A. plane at Heathrow.

"Fickle it is that you are, Morgan," scolded Dafydd as the cat settled down on Kathy's lap. He seemed to have taken her over and as she gently stroked his fur he purred like a well-tuned motor cycle.

The Professor clutched his shining briefcase that might be holding the key to global salvation. At length he began to nod off to sleep. Then, after what seemed a very short interval, Chris shook him gently.

"We're here now, Professor. We'll be landing at Kennedy in ten minutes," he said.

Dafydd shook his head and looked through the plane windows. Below he could pick out the famous Statue of Liberty and the tiny ships sailing past. Beyond lay New York, and even from this height he could appreciate the size of the great skyscrapers that distinguished this fabulous American city. Once he thought he caught a glimpse of the United Nations Building in the rays of the setting sun. Setting sun? Surely it must have set hours ago? Then he remembered that the supersonic jet had flown them faster than the Earth revolves, so that they had arrived in New York two hours, local time, earlier than they had left London.

In the airport lounge it was time for Kathy and Morgan to part. When she had first carried him through Customs a burly policeman had held her up, but Chris produced the special certificate issued for the cat by the American embassy, so they were let through. Dafydd had to hold Morgan, for it seemed that the animal had decided that it was the girl with whom he was going rather than his old master.

The Professor bent over Kathy's hand with old-world courtesy.

"It has been a pleasure meeting you, my dear," he said, "and I hope we may meet again."

"Look," Kathy said impulsively, "I live in a suburb called Floral Park. It isn't too far from here. My parents would welcome you both at any time you can spare an hour off. Will you bring the Professor to visit us, Chris? Oh, and Morgan?"

"If we can get away," the Deputy promised, "but I imagine we are going to be rather busy."

"Oh, well, you know my address," Kathy reminded him. "Now I must get off. I can see my father has the Chevrolet outside."

"An attractive and intelligent young woman," Dafydd observed as Kathy waved back to them before walking through the exit doors. "How different from Olwen."

Chris almost laughed at the comparison. Certainly it was hard to imagine two more dissimilar people than the girl astronomer and the housekeeper.

A tall figure was striding purposefully towards the waiting pair.

"Professor Evans," Chris said, "let me introduce you to my Chief. This is Sir William Gillanders."

Eight

The Director of U.N.E.X.A. welcomed the Professor, and thanked him for agreeing to help them.

"When you feel sufficiently rested after your flight, I've got some people waiting to see you. Meanwhile we have a couple of rooms set aside for you at our place. However, if you'd rather stay in a hotel—"

"No. I gather that you want me to stay with you in the U.N.E.X.A. suite in the U.N.O. building?" Dafydd asked. "Well, I've no objection so long as this wretched animal can come along."

Sir Billy noticed Morgan for the first time, for the cat had been away exploring but now returned to his master.

"Chief, let me introduce Morgan," Chris laughed. "He's not always a perfect gentleman, I'm afraid."

As if to confirm this description of him Morgan arched his back and spat at Sir Billy as he bent down and tried to make friends.

"Wicked cat!" Dafydd scolded. "Have I not taught you better manners than that? Now apologize to the gentleman."

As if Morgan understood every word—which he probably did—his mood changed in a flash. The next moment he was rubbing himself ingratiatingly against the Director's leg.

"Fickle—that is what you are," Dafydd told him. "Now be on your best behaviour, or I shall have you sent to a cats' home."

The animal looked at his master, and if cats can laugh, Chris could have sworn that at that moment Morgan was laughing at Dafydd.

"Er—shall we go to the car?" Sir Billy suggested, and all four went to the vast black limousine that bore the U.N.E.X.A. flash. A uniformed chauffeur leapt out of his seat to open the doors.

The lights of New York were shining brilliantly as they threaded their way through the evening rush of cars. Inside each one were people intent only on reaching their homes as quickly as possible, and Chris wondered how these same people would feel when they knew the truth.

They arrived at the U.N.O. Building, and an elevator whisked them up to the U.N.E.X.A. suite on the thirty-fifth floor.

"Do you feel like meeting any of our people this evening, Professor?" Sir Billy asked as he led the two men and the cat along the carpeted corridor. Dafydd was still hanging on to his briefcase.

"Why not?" he replied. "If time is important, give me an hour to freshen up and get something to eat. Then I'm your man."

"Good for you, sir," Billy smiled. "Yes, time is important. Our people in Lunar City are starting to get a little worried about some of their observations. I've had to send one of our best men—your friend, Morrey, Chris—to put them in the picture."

They entered the spacious but simply furnished bed-sitting-room, which Morgan at once began to inspect.

"Will you be comfortable here, sir?" Chris asked. "If there is anything you need you have only to let us know."

"No. This will do fine," Dafydd replied, looking around. How different this was from his own bedroom! At home his window looked out across Cardigan Bay. Here he could see only great cliffs of buildings—some towering high above. Far below were the bright streets filled with vehicles and traffic lights. Here he could got no whiff of the sea, no smell of the countryside, no chatter from his friends, the birds.

Well—he'd come here to do a job, and the sooner he had passed over his notes to Sir William and his friends, the sooner Morgan and he would be able to return to the quiet Welsh town.

"Sandwiches do for you, sir?" asked Chris. "Er—what will Morgan require?"

"That cat is sometimes very choosy about what he eats," Dafydd sighed. "But perhaps a little fish might tempt him."

"Relax," smiled Chris, "and we'll have everything here in a few minutes. Mind if we join you?"

"By all means," the Professor replied courteously. "It is you who are the hosts."

"Fine. We'll be back in fifteen minutes," Sir Billy said. "The food should be here by then."

It was. Dafydd had only had time to wash, and unpack his bag, when a discreet knock came on the door. He opened it and a girl in uniform pushed in a trolley.

"The Director will be joining you shortly," she told Dafydd. "Will there be anything else?"

The old man glanced at the lavishly loaded trolley and decided that nothing else could possibly be needed.

"No, thank you, my dear. I take it that this is for Morgan?"

"Morgan? Oh, your cat, sir. Yes, that was a special order," the girl smiled.

"It is far too good and too much for him," Dafydd grumbled, eyeing the huge slice of fresh salmon on a separate plate. "He does not deserve it. He will be spoiled altogether."

Morgan didn't think so. Already he had come sniffing round the trolley and had to be shooed off by his master.

"Can you not wait until the others come, you greedy creature?" Dafydd reproved him.

Fortunately Morgan did not have long to wait. Sir Billy and Chris came in very soon after the girl had left.

"Ah, this looks good," Sir Billy declared. "Let's hope it suits Morgan."

The cat's dish was cleared long before those of the humans, and Morgan sat cleaning up while waiting for the others.

"The people you are going to meet are the top names in electronics and engineering, with a sprinkling from the Universities and Institutes of Technology. They have already been briefed about the Moon's orbit and have had time to get over the first shock. You'll find them anxious to examine your ideas critically and in great detail, so that we can make an assessment about if, and how, they can be used.

"I must warn you, Professor," the Director went on, "that some of them are not theorists, but people with long practical experience. They may try to pull your ideas to pieces, not because they do not appreciate what you have done, but to try to pinpoint all the difficulties that may arise. I hope you will take it that way."

"Most certainly, Sir William. Your friends will know far better than I if the work of an ancient Welsh teacher has any value or not," Dafydd replied with a twinkle. "And if it has—what then?"

"Then decisions will have to be taken about how and where your shield should be constructed, its size and power, and its design. A vast industrial organization will have to be created to make the hardware, and all necessary resources of men and materials will have to be provided," answered Sir Billy.

"You stay there, Morgan boy," Dafydd ordered as he prepared to follow the other two to a small lecture theatre where the meeting had been arranged. The cat looked at his master with fathomless eyes, jumped on to the bed and settled down to sleep. Dafydd shrugged.

"Lucky he doesn't insist on coming with me," he smiled.

It was a fascinating session that followed. For over an hour Professor Evans addressed the gathering as if he were lecturing to a class of bright students. He explained the theoretical side of his work and reported on the results obtained from his home-made apparatus. His audience listened attentively, for they all knew what would happen if this last hope failed.

When Dafydd sat down there was a spontaneous ripple of applause. It seemed that this elderly Welshman was offering the world a way—the only way—to escape its fate.

Professor Evans had been used to questioning by clever students, but never before had he experienced anything like the next two hours. These people, all brilliant in their special fields, were intent on probing Dafydd's theories and researches to the limit. Only then could a collective opinion be formed as to whether it was practical to create a field powerful enough to affect the gravitational tie between Earth and Moon.

"The Professor has had a long day," Sir Billy had to point out at last. "I suggest we allow him to retire, and perhaps we can resume the discussion with him after breakfast tomorrow."

Dafydd was going to protest, but then he realized how tired he felt. With some reluctance he rose to go. All the company stood up politely, a gesture that pleased the old man more than he would admit. He hoped for their sakes that they could make use of his work. Now what had that cat Morgan been up to while he'd been away?

After Chris had taken the old man back to his room the conference resumed. Most people thought that there was a distinct possibility of the Evans electrical field being effective if it could be built on a sufficient scale and in the right place.

Taking the second problem first, there was much discussion on where to set up the vast apparatus that would be necessary. Gravity acts on a more or less straight line joining the centres of Earth and Moon. To be most effective the field would have to be placed somewhere along this line so that it could break this invisible pull. However, as the Moon travelled round the Earth, and the Earth itself revolved on its axis, this Earth-Moon gravity line was constantly changing its position. It would mean building a large number of plants all round the globe, so that no matter in what position the Moon was, one of them would be facing it. Only in this way could gravity be reduced for long enough to have any result.

This presented a fantastic problem. Even if all the resources of the Earth were devoted to the project, it was very doubtful whether it could be completed in time to be of any use. Gloom settled on the conference.

Suddenly Chris sprange to his feet.

"What fatheads we are," he shouted. "The answer is simple."

The others looked at him as if he were crazy.

"What on earth are you on about, Chris?" the Director demanded.

"Nothing on Earth," the Deputy declared excitedly. "Don't you see? The ideal place for the Professor's electrical field is on the Moon itself. It doesn't revolve, it always has the same face turned towards us. The gravity line between Earth and Moon is almost stationary relative to the Moon itself. We should build the apparatus right in the centre of its Earthward face."

It took a few seconds for this startling idea to sink in. Then the objections started.

"Impossible!" one of the engineers declared. "How could we ever erect such a large piece of equipment on the Moon? We could never get it there."

"What about power supplies? We should need solar panels thousands of kilometres square," declared a man from the Massachusetts Institute of Technology.

"And what about personnel? It would require tens of thousands of highly skilled workers to build and install such a vast apparatus. You couldn't possibly train so many for lunar conditions in so short a time," was the opinion of a man from Cornell University.

"Anything else?" asked Chris, pale and determined. "No? Well, let's take the three difficulties that have been raised so far. I don't doubt others will follow later. I admit it would be a formidable task to erect anything so large on the Moon. But if you place it on Earth, you've got to have something that almost circles the globe. An apparatus on the Moon could be a mere fraction of the size of a terrestrial one. Difficult though it may be, I'm sure that the Moon-based field is a practical proposition.

"About power supplies. No one suggests that we can get enough power from solar cells, our usual source of electricity. We'll have to design, construct and transport miniature atomic power stations, and I can't think that that will be impossible.

"As for personnel—well, we shall have to have a crash training programme. Remember that all nations will be anxious to pool their resources once this thing is known. We shall be inundated with volunteers. I'm quite sure that, if it will save the world, we'll be able to put quite an army of people on the Moon for the construction job."

Several people supported Chris, but others still didn't think his idea feasible.

"To transport all the men and materials required is far beyond the carrying capacity of all the spaceships in the world," someone pointed out. "Then there would be the problem of keeping such a large body of workers supplied with food, water and oxygen. It just isn't on, Sir William. If we build the apparatus on Earth, at least our men and materials are at hand."

It was a little man from Princeton who finally swung the arguments in favour of the Moon-based project.

"There's something we've all overlooked," he said quietly. "Assuming we can circle the Earth with stations generating the electrical anti-gravity field and that our undertaking is successful, what are we going to do with the stuff after the Moon has gone back into place? We shall then be faced with the enormous task of dismantling it or letting it deteriorate into a permanent blot on the face of the Earth. Whereas if we construct the apparatus on the Moon it can remain there permanently. You see, my friends, we have no guarantee that the Moon's orbit will not begin to contract again. We don't know what has caused this contraction. Nor do we know if that cause still exists. An apparatus built on the Moon could be left there and would deteriorate much more slowly under the airless lunar conditions. It would then be available for reactivation immediately a further contraction became apparent."

"And that could be done automatically," Chris added. "We could use continuous laser measurements to switch the apparatus on or off as required."

Sir Billy gave his decision.

"We'll place the apparatus on the Moon," he said. "I know it will require a tremendous effort, but with the whole world behind us I'm sure we can do it. In the morning we'll see what the Professor says, and if he agrees it can be done, we'll get down to planning and drawing up detailed specifications. Ladies and gentlemen, you have a heavy task before you tomorrow. I suggest we all turn in now and meet again at nine in the morning."

As the company began drifting away in little knots, talking earnestly about the situation, the Director called for their attention once more.

"Ladies and gentlemen," he said. "Please be careful. It would still be premature for the news to leak out."

Nine

Wally Hughes had enjoyed writing the first three chapters of his new book. He had introduced the impending collision between Moon and Earth, using a wealth of astronomical detail to make his story quite credible. Now he was coming to the more difficult part—describing how people would react when they learned that they were doomed.

Wally lay back in his easy chair, a record playing softly on his machine. This was a favourite device of his, and he always believed it helped with his work. Now with an effort he switched his mind from 'Valse Triste' to the problem he had to solve. What would people really do?

What would *he* do? It wasn't a bad idea to start with oneself. Wally went cold as he forced himself to think how he would feel if the Earth were really going to be destroyed in five years' time. Oh, it was easy to make believe that he would strike some heroic pose and remain calm and dignified to the end. But he couldn't honestly believe that he was capable of this detached and noble attitude.

Of course a lot depended on how other people behaved. If everyone accepted the situation with calm and resignation, it would be easier to do likewise. But if everyone panicked and turned into a demented and fear-crazed mob, it would be almost impossible to avoid being swept along.

He supposed that a few people—not many, he thought—

would stand out as firmly as rocks in the mad, swirling situation around them. He'd like to think that he would be one of those last bastions of human dignity, but he feared he couldn't be. He might have to be one of the mob in order to survive.

But would he want to survive? If the end was inevitable, would it not be better to slide out of life before the final deterioration?

Wally decided to write different characters into his story and to work out what each, with their differing outlooks on life, would do. The more he thought about it, the greater seemed the challenge to make his story credible. He found it a fascinating exercise, when he tore himself away from his typewriter and visited his local pub, to try to picture what the other people in the bar would do. That fat man who was for ever laying down the law, for example. Would he have the courage to endure? Would the quiet little man with the watery eyes prove more courageous? And what would Lil, the barmaid, do? Would her stock of pert quips see her through?

On a wider scale he imagined all sorts of dangerous situations developing. Many people would no longer want to work, to save, to keep their houses in repair. Many would squander what cash they had in a last wild fling while money still had any value. He foresaw looting and pillage and crime of all kinds.

As he went home Wally passed St Paul's Cathedral. He stopped and stared at it thoughtfully. How far would religion help people to face the last hours? He had known men and women who knew that they were dying find great solace and strength in prayer. No doubt many would do so if the events about which he was writing were true. Perhaps that was what he would like to do himself. But would he?

Next day Wally was able to take his first three chapters to his publishers. Normally he would have enjoyed a chat with Mr Charles, but now he felt in a mood for writing and knew he mustn't let it slip by. So he hurried home and pounded on the typewriter for hour after hour. His story was coming along well.

Morrey Kant stepped out of the transfer vehicle that had brought him from the ferry landing-pad right into Lunar City. How easy it was now to enter this huge man-made base on Earth's satellite. When it had first been constructed astronauts had to put on their spacesuits before leaving the ferry that had brought them from Earth, and then walk or ride an uncomfortable three miles before entering the city through an airlock. Only then could they escape from the confines of their suits and breathe a free atmosphere. Now the transfer vehicle could make an airtight seal with the spaceship, so that passengers and crew had only to step out of the ship and into the vehicle. Nor was a suit necessary when they entered Lunar City, for the transfer vehicle drove right in through the airlock before discharging its passengers.

Morrey welcomed the opportunity to stretch his legs. It would take a few minutes to become accustomed to the low lunar gravity, and to get used to the half-walking, half-floating method of getting about. He was welcomed by Commander Steventon, who was in control of Lunar City and who had been alerted by U.N.E.X.A. about his visit. No hint for its reason had been given, and the Commander was curious. Morrey asked for an immediate session with him in the privacy of his office.

"Can I order you some refreshment?" asked Steventon when they got there.

"Later," Morrey replied. "First, I have something vital to say to you."

The Commander looked at his visitor in surprise. He could see now how grave Morrey looked.

Soon he learned the reason, for Morrey revealed all that he had been told by Sir Billy about the impending catastrophe.

Commander Steventon was a brave man, but he was visibly shaken by the news. Morrey went on to say that all was not hopeless, and that at that very moment a possible means of averting the disaster was being studied. Meanwhile, had any of the staff noticed anything peculiar about the Moon's behaviour?

"Indeed they have," the Commander confessed. "We've all been puzzled by some of the observations that we've been making. Of course we had no idea of their cause."

"Do you want to tell your people?" asked Morrey. "How many are you?

"At this moment, two hundred and fifty-six," answered Commander Steventon, "and as for telling them—well, yes, I think I'd like to. They're not cowards, you know. I've every confidence in the way they will take it. But tell me more about that chance, that hope, that we may have after all."

Morrey could only repeat what he'd been told, namely that an old Welsh professor had discovered a way of creating an electrical anti-gravity field.

"At least we've got something to hold on to," the Commander observed with an attempt at a smile. "What do you think are the chances of doing anything effective?"

"I haven't a clue," Morrey admitted. "There was only time to give me the barest details before I was sent here to put you in the picture."

"I wonder if I could ask you to inform everyone here? I'll have a general muster in the dining hall. We'll arrange to call in all the people from outside stations and switch everything on to automatic so that we can get a full muster."

"Very well," Morrey agreed. "The sooner it's done, the better."

"It will take about two hours to arrange, so if you will excuse me for a moment I'll set things in motion."

Steventon went out, leaving Morrey to think over how he would break the news to the base personnel.

Everyone on the Moon was present at the meeting except two people who were in the sick bay and a nurse who remained with them. It went better than Morrey expected, but there was still a stunned silence when Commander Steventon dismissed the gathering and ordered them all back to their jobs. Reaction would set in later, and Morrey was anxious to know how it would manifest itself. After all, this was by far the largest body of people who had been informed of their impending doom and of the outside chance of averting it. The behaviour of this small community on the Moon might give a clue about what to expect when the news was generally revealed on Earth. Commander Steventon undertook to watch the situation closely and to record developments.

"I'll be staying with you for a few weeks, I expect," Morrey told him, "so you and I can observe together the effects on your people."

"I'm not sure that what happens in Lunar City will be repeated on Earth," the Commander observed. "Here we are a disciplined force of trained people. We are used to constant hazards, and danger is ever present. It is only because our safety regulations are so strict that so few fatal accidents occur. Even so there are some."

"For all of us life will mean an ever greater strain," mused Morrey, and the Commander couldn't but agree.

The lecture theatre in the U.N.O. building was full as the serious, silent company waited for Sir Billy and the Professor to appear. There was very little conversation. Everyone seemed afraid to speak to his neighbour in case he revealed the turmoil that was going on within him. Everyone wondered what the others were thinking. It was a relief when the door opened and the two men appeared.

"Good morning, ladies and gentlemen," Sir Billy began. He was about to add "and I hope you slept well," but that seemed out of place. It was evident that many present hadn't slept at all since the last session had broken up.

"I've told Professor Evans that we have decided that the best place to locate the apparatus is on the Moon itself, and the Professor sees no objections to that provided we can overcome the physical difficulties. I now propose to get down to details and to divide you all into working parties. These must start at once on such things as over-all design, detailed design, power supply, transportation, personnel requirements, etc. The Professor and I will be available to any group who think we can help."

The Director then went on to read the names of each of the working parties from a list that Chris had drawn up during the night, for the Deputy had only just crawled away to bed.

To begin with Sir Billy and Dafydd would join the working party on over-all design, for until this had been settled the other parties could discuss their problems only in general terms. Separate rooms were allocated to each party so that they could get down to work at once. However, a snag did arise. Because of an electrical fault the ventilation in one of the rooms was not working, so Sir Billy decided to go down a floor and borrow one of the U.N.O. rooms. He had just settled a working party in this room when a fussy little man from the United Nations secretariat hurried in.

"Here—you can't have this room," he squeaked. "This is wanted for an important conference on Dutch Elm disease. Please vacate the room at once."

Sir Billy drew himself up to his full height and turned to the little man. Then he bent down until his face was level with the flushed one of the secretary.

"Go away," he said deliberately and slowly. "I am having this room."

The little man turned almost purple.

"This is outrageous," he stormed. "I will report this to the Secretary General. Don't you realize how important this

Dutch Elm Disease Conference is? In a few years there may be no elm trees left in the world."

It was a great temptation to say something to the bristling little secretary that would have drained all colour from his face and sent him away wondering if his beloved conference was really worth while.

Dafydd and Sir Billy flitted from one working party to another. Within a few hours rough plans were beginning to emerge. The apparatus would need to be a vast ring, eighteen miles in diameter. It should be situated as near to the lunar equator as the terrain would allow. Probably the best site was the Sinus Medii, which was a reasonably flat area almost in the dead centre of the Moon's earthward face.

Under the Professor's guidance one working party began drawing up a detailed specification of the apparatus. The amount of material required was staggering, and another party was given the task of working out plans for its transportation to the Moon. As for the actual making of the equipment, U.N.E.X.A. already had a list of, and employed, most of the world's leading contractors. They must all be used to the utmost of their capacity if the anti-gravity field was to operate in time.

"I don't suppose we shall have any quibbles about funds for this job," said Chris, who had now joined the others. It still rankled that the U.N.E.X.A. budget had been slashed by nations who thought that its activities were a waste of money.

It was as Sir Billy, Dafydd and Chris were on their way to visit another working party that a worried-looking commissionaire stopped the Professor.

"Can you come at once, sir?"

Sir Billy and Chris looked at each other in surprise and with concern. Why was the Professor wanted urgently? What was sufficiently important to take him away from this vital task? They both decided to go along with him.

The commissionaire literally trotted them along the corridors of the U.N.O. building and through the open doors of a waiting lift. They shot up to the U.N.E.X.A. floor, where he led them to the closed door of one of the rooms.

"Will you go in first, sir?" he asked, turning to Dafydd.

"This is my room," the Professor exclaimed. "What is the matter?"

"Listen," urged the man.

They listened. Beyond the door they heard an unearthly sound. Chris and Sir Billy looked at each other in wonder, but the Professor knew what it was.

"Morgan!" he exploded. "That wretched cat! Can't stand being left for a few minutes!"

So that was it! His master had been gone from his room for more than "a few minutes". It was five hours, to be exact, and the cat was protesting with bloodcurdling howls at being locked in for so long. The Professor unlocked the door and flung it open. The black and white cat looked at him reproachfully.

"Whatever is the matter with you, you bad animal?" Dafydd asked. "Can you not wait a bit?"

"He's probably hungry and thirsty," Chris said. "Shall I order him something?"

"I suppose so," the old man said irritably. "But why this imp of the devil can't be a little patient I don't know."

The "imp of the devil" was now rubbing against his master's legs, having apparently forgiven Dafydd for deserting him. Chris slipped away and gave an order to the kitchen.

Ten

Wally hadn't shaved for two days.

"Good job I'm a bachelor," he mused, gazing at his reflection in the bathroom mirror.

He had become so absorbed in the book he was writing that he'd almost forgotten to eat either. He was now well into the second half of his story and was describing the panic and lawlessness that were destroying society. He'd decided that though some individuals might make heroic exceptions to the common pattern, the crazed fear of the mobs would be infectious. He really let himself go describing how mobs in every so-called civilized country were looting the shops, warehouses and liquor stores. Martial law was universal, but armies set to preserve order soon deteriorated into nothing more than armed gangs.

Britain made a valiant attempt to be different. Every means of propaganda was used to urge people to "Die with Dignity". Special "D.D." badges were designed, and all who wore them were supposed to set an example and await the last disaster with fortitude.

And that gave Wally an idea. He'd sent two batches of typescript to his publishers and had checked the proofs. Now Mr Charles was pressing him for the name of the book, so that the title page could be set up. Why not *The Last Disaster*? After all, that described the events exactly. That would be the culmination of his story. So—that was what he decided.

The staff of Lunar City had taken the news very well. Only three people had cracked up, and they were confined to the sick bay. Commander Steventon was not displeased with his staff. Things could have been much worse.

Morrey had suggested an intensive programme of observations and measurements. This would help to occupy the staff and could prove useful if, and when, an attempt was made to avert the disaster.

Parties ranging over the lunar surface reported that there was a noticeable increase in the number of rock falls. No doubt the increased pull of the Earth was responsible, just as the Moon, by subjecting the Earth's crust to greater stress, was causing more earthquakes and eruptions. Only a few hours before news had come over the radio of a serious earthquake in Northern Italy. Many villages had been destroyed and over a thousand people had lost their lives. The radio also reported the continuation of exceptionally high tides all round the world. People were beginning to get worried.

It was the regular reports from the working parties of U.N.E.X.A. that helped, more than anything else, to sustain the morale of the men and women in Lunar City. When news came through that it had been decided to place the anti-gravity apparatus on the Moon itself, excitement spread. They knew that they would be very much involved in the desperate attempt to save mankind.

All activity outside the city was now, of course, concentrated on the proposed site. Long-ranging vehicles set off at frequent intervals to survey the Sinus Medii surface. It gave everyone in Lunar City a great lift to learn that they would be responsible for deciding on, and marking out, the precise area on which the great ring was to be constructed.

Another great help was the call to assess the needs of the vastly expanded population that would be needed to build the ring. Extra landing-pads for ferries would have to be sited and laid down, and Commander Steventon was requested to start this work at once. So a new spirit of hope, even enthusiasm, swept over Lunar City. With so many vital and urgent jobs to be done, everyone was involved. They all felt that they were making an important contribution to the most stupendous and vital effort that had been undertaken in the world's whole history.

Dafydd and Morgan had retired to the Professor's room after a long and exhausting day. Good progress had been made in each of the working parties, and Sir Billy was delighted at the way things were shaping. Now the Director and his Deputy were drinking a quiet cup of coffee before retiring themselves.

"Chris, the time has come when we've got to inform all governments of the situation," Sir Billy said, setting down his empty cup.

"Don't you think it will be risky?" asked Chris. "If we tell the governments, won't the news spread to the public?"

"I hope not," Sir Billy replied. "But if we are to start a vast manufacturing programme at once, and if we are to get the necessary funds, I see no alternative to taking the governments into our confidence."

"How do you propose to go about it?"

Sir Billy thought for a moment.

"I think we shall first have to tell the U.N.O. Secretary General," he said. "Then it shouldn't be too difficult to get him to call a special General Assembly. Either he could tell the delegates or I would. It would have to be a closed session, with the news media strictly excluded. Moreover, we should have to warn every delegate that if the news became generally known at this stage, it could jeopardize our entire effort."

"Why should it do that? You'll have to give them a reason."

"Because we shall want people to keep calm for as long as possible so that we can organize the vast manufacturing programme that will be called for," replied the Director. "Also, once the whole thing is under way, it will help to keep up people's spirits."

"You mean that if it can be seen that the whole world is united in making a great effort to save itself, it will give people hope?"

"Exactly. And hundreds of thousands, perhaps millions, of workers will be involved. That will all help."

"So timing is of the utmost importance."

"Precisely. We've got to let enough people know so that we can start working, get funds provided and contracts placed. By the way, I've ordered Serge and Tony to report here for duty."

"Good! I know they've both been on leave since their spell at Lunar City. They just missed Morrey, so they won't know what is happening. Do you plan to tell them?"

"Of course. Then they can draw up a training programme for all the people we shall have to transport. Morrey will not be back for some weeks, so I shall want them to get really busy. Would you break the news to them? They should be here in the morning."

The working parties really lived up to their name. With the result of failure ever in their minds, they needed no further encouragement to work to the limit of their capacities. Sir Billy was gratified by the progress they were making, but Professor Evans confessed to being more than a little bewildered by the scale on which his ideas were being developed. It was a far cry from the home-made apparatus in his lab. at Aberystwyth to the vast installation, complete with nuclear power plant, that was being developed from it.

Tony Hale, the cheery mechanic with the perpetual grin, and Serge Smyslov, the slim, serious Russian, were old friends of Chris. Together with Morrey Kant, they had made many space voyages, and there were few corners of the solar system that one, or all, had not visited. It was a source of regret to Chris that, because of the nature of his job, he didn't see as much of his friends as he would have liked. Now he was looking forward to meeting them once more, even though he didn't relish the duty of telling Tony and Serge about the dreadful news.

As he'd expected, they took it well, and soon Tony was cracking his usual jokes. However, they both realized what a tremendous task was to be undertaken on the Moon. Naturally they expected to be deeply involved, and pressed Chris to let them know what part they could play.

"We shall need to recruit everyone who has ever been on the Moon," he said, "and thousands more besides. Billy wants you to be responsible for recruiting and training, beginning at once."

"When will the public be told?" asked Serge.

"Billy is planning to see the Secretary General and persuade him to call a special General Assembly of the United Nations Organization," Chris replied. "I hope we can keep things at government level for a few months more."

Sir Billy obtained a private interview with M. de Vaucouleurs. In a few crisp and merciless sentences the position was explained, and Sir Billy requested that a special meeting of U.N.O. be called at once.

M. de Vaucouleurs, a dapper Frenchman, showed no signs of emotion. He'd been a top diplomat all his life and was well practised in the art of concealing his feelings. Of course he couldn't but agree to Sir Billy's request, but he asked for seven days in which to go through the formalities of getting out notices and summoning delegates.

"Make it five days," Sir Billy snapped. "Look, de Vaucouleurs, I want to make something absolutely crystal clear. We cannot wait for officialdom and red tape. The situation is far too urgent. Every day may count, and I doubt whether the

Moon will wait for red tape in its journey down to strike us."

The Secretary General could only nod dumbly. In spite of his outward calm he was badly scared by the news. What was going to happen, he wondered, to his large wife and six vivacious daughters?

So messages and telephone calls were sent out to every nation on Earth summoning delegates to the Special Assembly. No reason was given, but the Secretary General indicated that they would have urgent business of the utmost importance to discuss and consider. Some of the smaller countries, still fiercely nationalistic, resented the summons. Who did the Secretary General think he was, calling them together as if they were a class of schoolboys? Yet there was something behind the terse wording of the summons that persuaded them to send a Head of State, or at least a Foreign Minister.

Sir Billy fretted impatiently while the delegates assembled. Yet those few days were full of activity for him. The working parties had been in almost continuous session and now the schedules, drawings and plans were nearing completion. Once governments had been informed what was happening, contracts could be placed and the job would really begin. One thing Sir Billy was determined to avoid at all costs—the lengthy process of putting out tenders, then vetting quotations in order to place the contracts at the lowest price.

If they failed to stop the Moon in its downward path it would matter little whether the highest or the lowest tender had been accepted. Money and everything else would have been destroyed in the great collision.

Nor would he countenance national rivalry about the contracts. There would be work enough for all to get the gigantic apparatus, the many spaceships, the power stations and the vastly expanded lunar living accommodation made and transported. There must be co-operation among nations on a scale never known before. He felt confident that the common fear would ensure this.

Wally's book was nearing completion. In it Britain's "D.D." campaign had had but limited success. Many who were proud to wear the badge at first later tore it off as they became infected with the raging panic. However, the campaign had spread to other countries, and in each there was a small minority who were determined to Die with Dignity.

Money, even property, had lost its value. In several countries—most notably America—syndicates sprang up offering to sell places in spaceships to escape the final destruction. Many people were gullible enough to give all they had for a guaranteed seat, and few of them questioned where the spaceships would take them.

As the Moon moved nearer, there was a vast increase in earthquakes, tidal waves, landslides and typhoons. Wally described in graphic detail how whole cities were destroyed as the mountainous tides, dragged up by the increasing pull of Earth's satellite, swept over them. Towards the end the Moon grew so large as almost to fill the skies. Craters, mountains and clefts were visible to the naked eye in great detail. Demented people shook their fists and hurled curses at the monster in the sky.

In his last chapter, Wally wrote that he was recording all these events. He would seal his writings in a steel capsule, for he hoped that some other civilization would salvage it from the debris of space. They would learn how a race called Man had met its doom. It wasn't a very pretty picture.

Even Mr Charles was impressed at the speed at which Wally had completed his book.

"We'll easily be able to meet the deadline your friend set," he said. "I hope your American publishers will be as quick off the mark. We've had each section flown over to them as it came off our presses."

"Yes, I don't think Chris will be able to grumble," Wally grinned wearily. "Now I don't want to see a typewriter for months."

The decision to set up the anti-gravity apparatus on the Moon continued to have an electrifying effect on everyone in Lunar City. It was a relief to know that they would be in the forefront of Earth's titanic effort to save itself.

Long messages flashed between the Director and the Commander, who always had Morrey beside him. Instructions, based on plans that had now been completed, were given for preparing the exact site in the Sinus Medii. The size of the ring staggered everyone, but none were daunted by the colossal task. Soon hundreds more people would be pouring into Lunar City, and accommodation would be stretched to the limit. But no one grumbled at the difficulties that this would cause.

Some of the staff were given the task of preparing for this influx, while most of the rest and every available vehicle were sent out to survey the actual site and to peg out the ring.

One task that must have priority was the construction of a mini Lunar City in the Sinus Medii itself. This would save hours of journeying over the rough lunar surface. Other larger bases would have to follow so that the thousands of workers could live on the job. It was in a spirit of great enthusiasm—exhilaration even—that Commander Steventon and Morrey Kant directed the first steps in the fight to survive.

All the corps of astronauts had been quietly summoned to Houston. Even those who hadn't been into space for several years were present. Tony and Serge told them what was happening, and to a man—and woman—they all volunteered to help in any way required.

Some were alerted to make an immediate journey to Lunar City. There they would swell the numbers already at work on extra landing pads, oxygen factories and hydroponic tanks for local food production. Many more channels of radio communication would have to be established, for the experts in many fields, who were on those first ferries, would have to use them.

Tony and Serge had drawn up their plans for the mass training of the army of people who would no doubt come forward when an appeal was made. All that was now required was for the General Assembly to convene and for the aid of all the world's governments to be enlisted.

Eleven

Though they didn't know it when they first met, the delegates to the special Assembly were attending the most historic and vital meeting that had taken place since the formation of U.N.O. The first things they noticed were the tighter than usual security, the insistence on identification, the absence of reporters, and two strange faces beside the President.

The noisy swell of conversation died down as the President banged his gavel and called the Assembly to order. When relative silence had been achieved he called on the Secretary General to make a statement. Many delegates now slipped on their earphones so that they could hear a translation into their own language of all that was being said.

M. de Vaucouleurs, slightly pale, rose and shuffled some papers. It seemed that this usually fluent Frenchman was having some difficulty in choosing his words. Or perhaps he wasn't well, for he certainly had less colour than usual. The Assembly waited, all talk now having died away. The seconds ticked by, and at last the Secretary General began to speak.

"Mr President," he began, "I have taken it upon myself, as I can do under the Charter, to call together this special Assembly of the United Nations. The reason I have done so is that there has come to me certain information of the utmost gravity, information that must now be passed on to the governments of all member nations. However, as you will understand when you receive this knowledge, it is vital to restrict it to the highest levels of government. That is why this is a closed Session and will not be reported publicly.

"With the President's permission, I ask that Sir William Gillanders, Director of our Exploration Agency, be allowed to address the Assembly."

There was now absolute silence in that huge assembly hall. Following what had become his normal practice, Sir Billy came straight to the point. He stated the situation in terse sentences, and he heard the gasps that went up from all parts of the hall. Hurrying on, he said that at his side was Professor Evans, who had made discoveries that could possibly prevent the catastrophe. As a result plans had been drawn up to construct a vast anti-gravity apparatus on the Moon. Now it required the wholehearted co-operation of all nations to build the equipment as quickly as possible. Only if this was done would the Earth stand any chance of survival.

All eyes had turned on the elderly Professor, who was sitting uncomfortably in a seat beside the Director. Sir Billy had had the greatest difficulty in persuading Dafydd to attend the Assembly. Only when he was promised that he would not have to speak did he agree to go along.

The attention of the delegates was suddenly diverted by a commotion coming from one of the seats a few rows back. A delegate was on his feet, waving furiously to attract the President's attention. Then, without waiting for an invitation, he made his way to the front and planted himself on the podium from which speeches were made. Grabbing the microphone, he began to pour out a torrent of words.

It was in a language that Sir Billy didn't understand, so he slipped on a nearby pair of earphones, set the switch to "English", and listened to the translation.

The translator was having great difficulty in keeping up with the rapid outpouring of the speaker, who, it seemed, came from an Eastern country. Sir Billy flushed with anger and incredulity as the gist of the speaker's remarks came over to him.

This was all a diabolical capitalist plot, the delegate declared, to scare the developing countries into servitude. The Assembly should refuse to listen to such rubbish, and the Director of U.N.E.X.A. should be dismissed as the tool of the colonialist powers.

At once pandemonium broke out, with delegates all over the hall on their feet shouting accusations and counter-accusations. There was a great waving of papers and shaking of fists. It took the President over a quarter of an hour to restore some semblance of order. Then he called Sir Billy to answer the charges.

"This is not a plot by any group of countries," the Director declared, forcing himself to speak calmly. "It is a fact that can be proved beyond doubt. Many of your countries have already experienced the effects of the Moon's approach."

He went on to list all the phenomena that had been caused by the increasing pull of Earth's satellite. As the list grew silence descended on the Assembly—a frightened silence. Most delegates knew that in their own countries strange things had happened. Here, it seemed, was the explanation.

"If you wish it," Sir Billy went on relentlessly, "I can arrange for a small group of you to visit one of our observtories to confirm what I have said. But I must warn this Assembly. Dissension and delay in agreeing to universal co-operation may be disastrous. We have little time to get organized. And if the Moon does strike the Earth, it will destroy all states alike."

"What do you wish us to do?" the President asked in a voice that shook.

"First," Sir Billy replied, "I would like every delegation here to give a solemn pledge that they will ensure that this information is kept confidential to their governments. The reason is that if it becomes generally known universal panic will break out. This would prevent the building of the vast amount of equipment that will be required.

"Secondly, I require that this Assembly authorizes my Agency to accept full responsibility for the construction, installation and operation of the anti-gravity shield.

"Thirdly, I request that every nation should put the whole of its resources at the disposal of my Agency, and that there be no limit to the funds we may use.

"If this Special Assembly of the United Nations fails to grant all three of these requests, I can accept no responsibility. The world might just as well reconcile itself to its certain destruction."

There was surprisingly little discussion after Sir Billy sat down. There could be no doubt that he had badly frightened everyone present, and many delegates showed it. It was the President himself who moved the necessary resolutions, and they were all carried unanimously.

"Thank goodness for that," breathed Sir Billy as the lift carried him and Dafydd to the U.N.E.X.A. floor. "Now we can get down to business. You've seen all the plans, Professor. Are you happy about them?"

"Yes, as far as I can tell," replied Dafydd. "But your apparatus will be so infinitely greater than my own that I am rather scared by it. Still—I see no reason why it should not work."

"We now have the green light from U.N.O.," the Director announced at a combined meeting of all the working parties later that day. "What we now require is the Master Plan, so that all your work can be fitted together smoothly. I would like each party to send its leader to form a kind of general co-ordinating committee. We must start placing contracts tomorrow."

There was much surprise during the next few days in the board rooms and directors' offices of large and small companies in many countries. The contracts were for pieces of equipment to be made according to the drawings and specifications supplied. No contract price had been sought or given. The only stipulation was that the job must be completed by the date specified. Acceptance of the contract would imply that the all-important date, too, was accepted.

U.N.E.X.A. let it be known among the services of all nations that it was seeking volunteers to train for the manning of an enlarged lunar base. As expected, they were flooded with offers. Tony and Serge worked long hours setting up a training programme to accommodate as many as possible of the volunteers.

Several nations, including the United States and the Soviet Union, announced that they were expanding their launching facilities because of the increased scale of lunar exploration. Not a whisper escaped of the true reason for this fever of activity.

Then came news of two more earthquakes and a dozen tidal waves. Seismologists and oceanographers were at a loss to explain them. Many hundreds of lives were lost and people began to get very nervous. There was much speculation about the causes of these disasters, but no one came up with the true answer. Certain gentlemen paraded both in Whitehall and Times Square carrying placards announcing that the end of the world was near. As a result of the general wickedness all would be destroyed. People must repent at once if they were to be saved. Sir Billy pursed his lips when he saw these paraders.

"I wonder what message their placards would bear if they really knew the truth," he mused.

Wally's book was published that week-end. The first copies had arrived at his flat, with a note from his publishers to say that it would be on sale the following Monday morning. Wally looked at the lurid jacket. It showed the moment of impact between Earth and Moon, with great pieces of each being thrown off into space. *The Last Disaster* seemed an appropriate title, standing out in blood-red letters.

"Not bad," Wally grinned. "I hope Chris will be satisfied. Now we'll wait for the critics."

Within a few days comments on *The Last Disaster* began to appear in the press.

"Not one of this writer's best efforts," one critic wrote. "His story is weak and unrealistic."

"Much too far-fetched," was the opinion of another. "Hughes hasn't a very high opinion of the human race if he thinks his descriptions are accurate."

"Rather frightening," a third wrote, "and rather clever. Hughes has taken advantage of the present wave of earthquakes and tidal waves to give reality to his story."

"The British would never act like that," still another critic observed.

"So much for the critics," Wally told himself. "I wonder what the readers think?"

The first letters arrived a few days after publication. They had been forwarded to him by the publishers, and Wally read them with interest. Many people wrote to say that they thought his description of universal panic had been exaggerated. Others told him that, in their opinion, if the world were indeed faced with a Last Disaster then people would spend all their money in travelling to see as much of it as possible.

An elderly colonel wrote facetiously, saying that if he had sufficiently early warning he would lay in a stock of liquor. He would then meet the Last Disaster in a state of happy oblivion.

A parson wrote reproving Wally for, even in fiction, daring to alter the immutable pattern of the Universe laid down by the Almighty. A schoolmaster wrote and said that if Wally's story was true, he'd take great delight in soundly thrashing all those horrible boys in his class who were making his life unbearable. "It wouldn't matter two hoots if I was sacked afterwards," he concluded.

Wally took all the press cuttings and letters and mailed them to Chris, with a note saying that he hoped his friend would find them useful. Whether they proved worth the expense of sponsoring his book he had, of course, no means of knowing.

The sense of exhilaration in Lunar City was maintained—even increased. As more arrivals landed from the ferries they were told the true reason for their coming. The sense of purpose was infectious. At least, here, something positive was being done to save the Earth.

Morrey and Commander Steventon shared duties. During the long lunar day as much work as possible was done on the A.G.S. (anti-gravity shield) site. Several small bulldozers had been assembled from parts sent up on early ferries, and larger ones would soon be on their way. Rocks and boulders were being cleared all around the eighteen-mile ring. Some, too large for the bulldozers, were blasted by explosives or cut by lasers. The debris was used to fill in craters.

Two of the service domes, in which the men who would build the A.G.S. would live, were in an advanced stage of construction. The hydroponic tanks and oxygen factory in Lunar City were working to full capacity, but others would have to be built. The tanks produced masses of algae which were concocted into quite palatable food. The oxygen factory crushed certain kinds of lunar rocks and produced oxygen from them. However, much food and oxygen still had to be brought in from Earth. The ferries made ever more frequent flights.

Even when the lunar night descended, work was carried on with the aid of lights run from miniature atomic power stations. Soon the site would be ready for construction to start. But when would the equipment be ready? When would the ferries arrive carrying the first sections of the vast ring that might save them?

A good question. Sir Billy and Chris were feeling increasingly frustrated. Most of the contracts had been placed for the ring, the power station and the rest of the equipment that would be necessary. Schedules of delivery dates had been worked out and checked. This was a complicated exercise, for each piece must arrive in the right order and on the exact date. A variation from this could cause considerable chaos and dislocate the whole programme.

The first pieces began to arrive, but then trouble started. A strike at a major contractor's completely ruined the schedule.

"What do they think they are doing?" Sir Billy blazed. "Their selfishness is going to destroy the world."

"I don't know who is to blame or the cause of the strike, but unless the work is resumed at once we could have a grave problem," Chris agreed. "Cannot the President order the workers back?"

"I doubt it," fumed Sir Billy. "That would need a special Act of Congress and would take months. If only people realized what is at stake! If they knew that the slightest hold-up could be fatal, I'm sure things would be different."

"Perhaps the only thing to do is to tell them," suggested Chris. "Oh, I know it would have been better if we could have waited till the A.G.S. was more advanced, but on balance I think we may gain by taking the world into our confidence."

It was a difficult situation, delicately balanced. The distress and panic that would be caused by the official news of the impending collision must be weighed against the sense of urgency that it would generate. Would the knowledge of what might happen upset production, or would it spur people on to their utmost efforts?

"Very well. We'll tell the world. We certainly cannot tolerate a rash of strikes and allow them to defeat our efforts. Surely the most militant worker or the most stubborn manager will alter his attitude when he knows the penalty of our failure," said Sir Billy.

"Have you thought out how precisely to make the announcement?" Chris asked.

"Yes. First I'll tell the U.N.O. that it must now be done. I'm prepared to do it myself if the delegates wish. Obviously we must get a universal radio and T.V. link-up so that everyone will know at the same time. I think the most important thing will be to emphasize the good chance we have of averting the disaster because of the work of Professor Evans. If we can persuade him to make a short recording for us, possibly based on his lab. at home and showing his results, I'm sure we can prevent people from going to pieces completely. All we want to do is to shock them sufficiently to see how important it is that our contracts are completed on time."

"I'll have a word with the Prof. about it," Chris volunteered, "and I don't think we have any time to lose. People already remark on how large the Moon looks on a clear night. They say it no longer appears romantic, but positively menacing."

Twelve

Professor Evans needed little persuading to return to his home for a few days. A telegram was sent to Olwen advising her of his coming. Chris insisted on staying in a hotel in Aberystwyth.

The object of the Professor's return was to make a television film about his experiments so that people could see with their own eyes the dramatic effect of his anti-gravity screen. This would be built into a longer programme in which the news would be announced. The idea was to conclude the dreadful news with a bright gleam of hope, with national leaders exhorting their peoples to show courage. The whole theme of the broadcast would be—"If we all work hard together we stand a good chance of saving ourselves."

It was Chris who briefed the T.V. crews, the producers and the script writers. Once they had got over the shock of realizing that this was not to be a science fiction programme but reality, they set to work with a will. They knew what an impact their work would have on the peoples of the world, and how important it was to give them a sober picture of the danger and of the effort that was going to be made to build the A.G.S. on the Moon. For a touch of light relief they took many shots of Morgan who, of course, had returned to his old haunts with his master.

"Mr Godfrey," demanded Olwen belligerently, "what are you doing to him? Dafydd Evans looks ten years older."

Chris hadn't realized it until she pointed it out. The last few strenuous weeks had taken their toll of the Professor. Now that he came to study him more closely the Deputy could see that Dafydd had, indeed, paid a price for the activity and strain he had found in America. He hoped that the old man wouldn't crack up. His advice and help were vital to the success of the whole undertaking.

Taking a few hours off from his work with the T.V. crews, Chris paid a flying visit to Wally Hughes. Together they studied and analysed more reactions to *The Last Disaster*, for now comments were coming in about the American edition.

"I shudder to think what would happen if we hadn't the A.G.S. to sustain us," Chris told himself.

In Wally's book there was no such hope of salvation, and he'd described what he thought would be the logical developments. Many people who had written to him didn't agree with his pessimistic predictions about mass hysteria, but then these were the people who would try to hold firm as long as possible.

"Hope this has been of use to you," Wally said. "Now, what was it all about?"

I might as well tell him, Chris thought. After all, I owe him some explanation, and the whole world will know within a few days. So he told the writer the real truth of the situation.

"Good," said Wally. "Now I hope all those critics will eat their words."

The U.N.O. delegates all agreed on the precise method of breaking the news to the world. For several days preliminary announcements were made about a forthcoming broadcast, and each succeeding one laid ever greater emphasis on its importance. But the most effective way of making people believe that something vital was in the offing was that all T.V. stations were closed down for twenty-four hours before the Special Broadcast. Even pop music was silent, much to the fury of millions of fans. What could possibly be more important, they demanded, than listening to the howls of the two most recently famous groups—Dragon's Fire and Goldilocks and the Three Bears?

The broadcast was timed to commence at midnight, Greenwich Mean Time. Because of the time difference it started at different hours, locally, all round the world. As midnight approached in London, and its equivalent in all cities on Earth, streets became deserted as everyone went home to learn what the fuss was all about. Another change of government? More taxation? A currency devaluation? The abdication of the British Monarch? A scandal at the White House?

It began with the chimes of Big Ben, perhaps the most famous clock in the world, striking the hour of midnight from the Palace of Westminster. Then each national network switched to its own Head of State. These men and women, of many nationalities and cultures, each delivered in solemn tones an agreed message. It was to the effect that a serious disturbance to the orbit of the Moon had been observed. Unless this could be corrected the consequences would be disastrous. Already the change in orbit had manifested itself by many strange phenomena on Earth. However, scientists and engineers of all nations were working together to meet this challenge, and, as viewers would see later in the programme, there was every hope of success. All that was needed of ordinary men and women was for them to remain calm at all costs, not to give way to fear or depression, and to have confidence that all would come right in the end.

Dr Frank Pointon appeared. He spoke slowly so that his words could be translated sentence by sentence into all languages and dialects. His task was to explain in simple language just what was happening to the lunar orbit and how the deviation had been detected. Dr Pointon also explained how the earthquakes, tidal waves and high tides were being caused.

"I believe the men and women of this world would wish to be told the truth," Dr Pointon concluded, "so I will give it to you straight from the shoulder. Our calculations show that, unless the present trend is halted, the Moon will collide with the Earth in something less than five years' time."

While audiences all over the world were still reeling from this shattering statement, the face of Sir Billy Gillanders was switched on to every screen. In brisk, confident words the Director of U.N.E.X.A. informed the world that a means of staying the Moon's descent had been found. Then he explained how the Moon was held in position by the gravity bond with Earth. If that bond could be cut or weakened, then the momentum of the satellite would carry it away from us. A film shot showed a boy swinging a stone round his head on a string. The string broke and away shot the stone. Several other examples of this principle were illustrated, including even the ancient biblical sling.

Back came Sir Billy to inform his world audience that a means of "cutting the string" had been found, and that plans were in hand to do just that. How it was to be done would now be explained.

A panoramic view of Aberystwyth followed, with the camera sweeping round until it included Professor Evans's house and lab. The Professor was shown leaving his house and walking to the laboratory. Then the camera left the elderly man and focused on another character. Morgan was shown following sedately in his master's footsteps!

"A very important contributor to our success," the commentator observed.

Next the camera moved into the laboratory and rested on the face of Professor Evans. In his best lecture tones Dafydd explained as simply as possible how his apparatus worked, and said that he would now give a demonstration.

Even on television the Professor's apparatus looked crude, but its maker explained how he had built it from bits and pieces. The massive stone weight was shown, as was the reading on the dial of the spring balance. Then Dafydd explained that he was about to switch on and set up an electrical anti-gravity shield beneath the weight. To add drama to his action he used the count-down method of preparing his audience.

At "zero" the camera was switched to the spring balance and the movement back of the indicator was shown plainly on all screens. After a few seconds the field was switched off and the true weight of the stone was registered once more. This was repeated several times so that all could see how effective the apparatus was.

"We will now leave Professor Evans and his feline assistant and return to Sir William Gillanders," the commentator said.

Then Sir Billy came on the screens again.

"Professor Evans has given us the means of 'cutting the string'," he announced. "We shall construct a vast apparatus, using his principles, to reduce the gravitational pull between the two bodies. It will be placed on the Moon itself, for many reasons which I need not go into at the moment. Basically it will be an enormous ring, eighteen miles in diameter, and placed in the Sinus Medii. Dr Pointon will show you exactly where this is."

The astronomer appeared beside a huge model of the Moon.

"To be most effective, the A.G.S.—which is the name we have given this apparatus—is to be placed in the centre of the Moon's earthward face," he said. With a pointer he indicated the precise spot.

"Working parties have already designed this immense structure," Dr Pointon went on. "Contracts have already been placed and the work started. But if we are to succeed we have no time to lose. Every day the Moon draws nearer, and the gravity bond becomes stronger and more difficult to break. We must do nothing to jeopardize the only chance to save ourselves."

Back to Sir Billy.

"Already work has started on the site," the Director informed his worldwide audience. "Here is a film of the work in progress."

There followed shots of vehicles setting out from Lunar City, and of men and machines working furiously to clear the ground and mark it out. There was also film of the tremendous amount of work done in the City itself, together with views of the new domes being set up in the Sinus Medii to house the influx of workers.

"This is the most tremendous construction job ever undertaken," Sir Billy concluded, "and the most important one. We can do it. We must do it. But it depends not only on the men and women working so valiantly on the Moon, but also on you and me and every one of us here on our beloved Earth."

Then the screens went blank and remained so for a full minute. When they lit up again it was to show the leaders of each nation declaring their absolute confidence in the outcome of the task that had been described. Each pledged the utmost support from his country. It only remained for all to keep calm and to do the jobs they were required to do.

So ended the most momentous broadcast in the world's history.

"I hope it works," breathed Sir Billy who, with Chris, had been watching the programme in his office.

"Everyone did well," Chris said. "I wonder how the press will treat it?"

"Oh, they've had some 'advice'," the Director smiled, "so I anticipate that they will follow the same line—hope of salvation, hard work for all, and carry on as usual."

"I wonder how long that will last?" mused Chris. "It won't be easy to keep everyone calm as the effects of the Moon become more serious."

"We must arrange for a daily report from the Sinus Medii to be broadcast," Sir Billy suggested. "It will help to keep up people's morale and provide a spur."

"Oh, Billy, I intended to mention it to you—have you noticed how worn and tired Professor Evans is beginning to look?" asked Chris.

"Yes, I have noticed it," the Director replied thoughtfully. "I suppose we have been working him too hard lately. We still need his help, of course, but I wonder if I could persuade him to take a short holiday? It was a break for him when he went home to record that T.V. programme, but he needs a complete rest for a few days. Any ideas, Chris?"

Chris thought for a few moments. It was essential that the Professor should have a break. His knowledge was vital for the building of the A.G.S. His presence would be even more necessary when the great day came for it to go into operation.

Kathy! What about taking him to stay with Kathy and her family for a few days? He'd promised to go along to Floral Park if he could fit it in. To tell the truth Chris wouldn't be averse to taking a break himself. He'd phone the Bensons and see if Kathy's parents could put up him and Dafydd for a short spell. Sir Billy agreed willingly.

"It will be better than packing him off to some hotel," he decided.

So that evening Chris phoned Kathy's home. She herself answered the phone.

"Chris!" she cried in delight, "how good to hear from you. I'm very angry with you, really, because you've forgotten your promise to come and visit us."

"Sorry, Kathy. I have been rather busy, as you should guess. But I was wondering if the Professor and I could come along and stay with you for a few days? The old chap badly needs a break."

"Of course you can, Chris. Mummy and Daddy will be delighted to entertain such a famous old gentleman. It's the least we can do to help."

"Right. Then we'll be along first thing in the morning."

"Chris—you are bringing Morgan, aren't you?"

"Of course," the Deputy laughed. "I'm sure he wouldn't let us leave him behind."

Soon after breakfast Dafydd, Chris and Morgan were driven out to Floral Park and to the Benson house in Geranium Avenue. At first Dafydd had protested about this break, declaring that he didn't need it. But Sir Billy insisted, saying that all the Professor's energy would be required for the later stages of the operation. Chris also, the Director said artfully, needed the rest.

Sam and Ruth Benson were, as their daughter had said, delighted to accommodate Chris and the Professor, and they made a great fuss of the old man. Meanwhile Morgan had deserted his master and shamelessly transferred his affections to Kathy. For the next few days Chris tried to forget about the disaster that loomed over them all, and to see that Dafydd had a complete rest. But that was easier said than done. The old man was constantly fretting about whether his A.G.S. would work.

"Suppose it doesn't," he said, "think of the trouble and expense I shall have caused."

"You are our only hope—and you will have tried," Chris consoled him. "Besides—people will have more to think about than the work that would have been wasted."

In any case, Chris assured him, it had been a worthwhile undertaking. It was helping people to keep calm, to have hope, and to be occupied.

It was true. The general atmosphere of New York was "business as usual". A small difference that a close observer might have noticed was the increase in people's determination to enjoy themselves. Restaurants and theatres, bars and shops reported record takings. Everyone seemed very friendly, for were not all facing a common danger? "Have a drink, chum."

But how long would this last, Chris wondered. Would the new spirit, created by the momentous broadcast, last long enough? He had no doubt that it would eventually crack under the increasing terror from the Moon. Would they have the A.G.S. off the ground—literally—before the break-up came? It would be a close thing.

Thirteen

Three months later the Benson house was destroyed. So were hundreds of thousands of other dwellings in New York, London, Rome, and many other cities near the sea. The mountainous tides grew ever more terrifying and destructive as the Moon came perceptibly nearer. Factories, foundries, offices and shops were also swept away, and countless people were drowned in the floods. Nerves began to crack.

Frantic government decrees ordered the evacuation of all coastal centres of population, but the task of moving everyone to safer ground inland was enormous. Vast cities of tents sprang up, families were compelled to share accommodation, industry was disrupted. Most disastrous of all was the effect on the vast spaceport at Cape Canaveral. This huge complex, situated on the Florida Flats, was the centre of the American effort to ship men and materials to the Moon. Now it had been put out of action by the murderous tides. But this setback was not taken lying down. A new site, well inland and on high ground, was chosen. It became the centre of activity of an intensity which had not been known since the nation had been at war. For the nation—and the world—were fighting as never before for existence.

If the high tides were high, the low tides were lower than they had ever been. It seemed that twice every day all water drained out of harbours and estuaries. Vast areas of sea-bed, never seen before, were exposed to sight, and ancient villages that had been swallowed by the sea centuries before saw the light of day once more. Several times amateur archaeologists, intent on exploring these new treasures, were overwhelmed by the cruel seas rushing in to claim an ever greater area of land.

Great changes in the pattern of world government were forced on an embattled Earth. U.N.O. became the Supreme Command responsible for the organization and co-ordination of the world-wide effort to survive. Its headquarters had been moved from a crumbling New York to Denver in Colorado.

National governments whose capital cities had been near the sea had been forced to move inland to higher ground. The sad exception was Holland, which had been completely overwhelmed. From their new centres governments struggled to carry out U.N.O.'s orders and follow its advice. Local and national politics were a thing of the past when all mankind was threatened.

While U.N.O. was charged with ensuring the survival of the race, U.N.E.X.A. was able to concentrate on its main task—the construction, transportation and assembly of the A.G.S. Sir Billy and his Deputy collapsed several times under the intense strain, fortunately never at the same time. Professor Evans suffered a mild heart attack and was compelled to spend some weeks in hospital. New manufacturing facilities had to be created when existing ones were destroyed by the ruthless tides. But the work went on, and the ferries blasted off with ever-increasing frequency from a score of launch sites between China and the United States.

The sea-less Moon was not troubled with these phenomena, but rockfalls and moonquakes became increasingly frequent. However, this had very little effect on the work in the Sinus Medii, where more than a thousand people toiled for long hours. The ring was already beginning to take shape as more sections arrived from Earth. Occasionally there was trouble fitting them together, and Commander Steventon sent some sarcastic messages back to U.N.E.X.A.

Morrey had been joined in Lunar City by four old friends—Bob Campbell, Mervyn Williams, Colin Johnson and Norman Spier—with whom he had worked many times before. Each was given charge of the construction of one section of the A.G.S., and a friendly rivalry developed between the quartet in the race to get the job done.

"I'll be finished a couple of weeks ahead of either of you," the tough Ulsterman, Bob Campbell, boasted with confidence. He was a slavedriver with his workers.

"Rubbish. If you could work as well as you can boast you'd be finished before you started," Mervyn Williams, the Welshman, chided him.

"You guys don't know what you're talking about," bald-headed Norman Spier said loftily. "Neither of you really knows how to get the best out of your workers."

The longhaired Colin Johnson said nothing, but there was a grin on his face and a glint in his eye.

"Ah well, this friendly competition will keep life from being dull," Morrey confided to Commander Steventon. "They're the best of friends really."

"I can see that," the Commander smiled. "But what different personalities."

So the work raced on. Even from Earth people with powerful binoculars could see the ring taking shape and drew comfort from it. The media kept pouring out optimistic reports to maintain public morale.

"It's no use," one section of opinion said. "We're fighting Nature. We cannot avoid the inevitable."

"Rubbish!" a still larger section replied. "We won't give in tamely. If we do, we deserve to be wiped out."

But with the increasing physical difficulties arising from the evacuation of coastal areas, the dislocation of industry and the devastating effect of the tidal floods on food production, it was hard to prevent the spread of despair.

Both Chris and Sir Billy were now seriously concerned about the health of Dafydd. Since his heart attack he had looked very grey in the face, and had slowed down noticeably. Nevertheless he insisted on carrying out his tasks. The Director and his Deputy were secretly relieved by this, for the functioning of the A.G.S. was vital and only the Professor could really ensure that it would work.

Serge and Tony, with their assistants, were churning out scores of volunteer astronauts. Though their training was necessarily curtailed, each was adequately equipped to cope with the lunar conditions. Every week a further shipload of construction workers blasted off for Earth's satellite.

"Had this writer some secret information?" a newspaper book critic asked, for Wally's book had again come under fire. "If not, it was remarkable guesswork."

"Hughes is an opportunist," someone else wrote. "He takes certain occurrences and weaves a story round them. By sheer good luck *The Last Disaster* comes pretty near the truth."

"We must prove this writer wrong," a third critic urged. "We will not, must not, crack up as he has suggested. Never let him have the satisfaction of saying 'I told you so'."

"I wonder how I could do that if my story came true?" grinned Wally. "If we all end up in little pieces I shan't be able to, shall I?"

U.N.O. realized the vital importance of keeping up morale and was using propaganda on a scale never known before except in wartime. In fact, this *was* wartime, and the forces of Nature were the enemy.

Camera teams and special correspondents were hurriedly trained for lunar conditions. They sent a daily broadcast and progress report from a studio in Lunar City. People took a feverish interest in how the A.G.S. was coming along. Its progress replaced the weather as a topic of conversation.

"The training programme can roll along on its own now," Serge and Tony reported. They were applying to the Director for a change of jobs, and it wasn't hard to guess that they were intent on joining Morrey on the Moon.

"All right," Sir Billy smiled. "We can do with every ounce of help we can get on the A.G.S."

Then he became more serious.

"I'm sorry to say that the programme has fallen about a month behind schedule," he told them. "But of course this information is confidential."

"Why is that, Sir Billy?" asked Serge.

"Well, we had the strikes to begin with, then there was the serious dislocation of production caused by the tides. Then much effort has had to be diverted to housing and moving whole cities."

"Will this delay be fatal?" enquired Tony.

"It's hard to say," the Director replied, "but it's going to be an uncomfortably close thing."

Morrey welcomed the arrival of his friends at Lunar City. He, too, had been feeling the effects of long hours of work on supervising the construction of the A.G.S. This task had largely fallen to him, for Commander Steventon had as much as he could do in running the vastly expanded lunar base. Several times Morrey had contemplated asking for some leave, but the urgency of the task and his own strong sense of duty held him back. Now Tony and Serge were here, life might become a little easier.

The newcomers were impressed by the amount of work that had already been done. Not only had appreciable portions of the A.G.S. ring been completed, but the power station and control room were well under way. Tony and Serge were able to take some of the load off Morrey's shoulders, so the work benefited considerably.

Though Dafydd Evans seemed to have recovered from his heart attack he looked very frail. But in spite of the protests of Chris and Sir Billy, he insisted on checking every piece of equipment before shipment to the Moon.

"We can't afford to take any chances," he said in a weak voice. "We may not get more than one."

Morgan seemed aware of his master's failing strength, and never left him for a moment. Dafydd, in brief moments of relaxation, would bend down and stroke his pet. Morgan would respond by rubbing against his legs and purring loudly.

"I swear that cat has the loudest purr I've ever heard," laughed Chris. He had become very fond of the Professor and it grieved him to see the old man so ill. So he had to keep telling himself that Dafydd's work was more important than Dafydd's life. Or his own, for that matter.

A most unseasonable heatwave made the lives of millions of people even more uncomfortable. All meteorological records had been broken by the high temperatures. All day long the sun's heat poured down out of a cloudless sky. Like every other trouble the heatwave was blamed on the villainous Moon, and in this case the blame was justified.

"Just as it pulls the seas up into huge mountains of water, so it is also dragging away at Earth's atmosphere," the Chief Meteorologist of U.N.O. explained. "Water and dust particles are being sucked away from the Earth, leaving us without the protection of clouds. Drinking water will soon become very scarce."

Emergency laws to conserve water were strictly enforced in all countries. The alarming list of dried-up rivers and lakes grew ever longer as the Great Drought continued. It took all the efforts of the vast U.N.O. propaganda machine to keep up the spirits of the mass of the people. If they gave way then the fight to save the planet would be hopelessly lost.

As week succeeded week there were outbreaks of mass hysteria. Many people broke down completely, cursing the Moon madly for all their troubles. Only news of the superhuman efforts of the construction crews in the Sinus Medii, and the confidence that Sir Billy tried to radiate, saved a large part of the civilized world from a complete breakdown.

The achievements on the Moon were quite superhuman. Only sheer physical exhaustion interrupted the crews in their race against time. The A.G.S. was almost complete, but when it was ready the whole apparatus would still have to be carefully checked. The nuclear power station was still behind schedule, so Morrey and his friends had to concentrate on it, for without ample power the shield could not operate.

Back on Earth the astronomers had some alarming news. Since the first discovery that the Moon's orbit was contracting they had had it under constant observation. Laser beams, reflected back, kept up a perpetual watch. The distance between Earth and Moon was decreasing ever more rapidly!

Careful measurements showed that Earth's satellite was now little more than one hundred and eighty thousand miles away—barely three-quarters of its normal distance—and that its approach was accelerating. It was spiralling down at an ever-increasing rate.

It was quite easy for the computers to update the prediction of the exact moment of impact, but what was not known was the effect the A.G.S. was going to have. Calculations had been made, based on Professor Evans's own experiments, but this apparatus was on such an infinitely greater scale that unknown factors could creep in. So it was impossible to determine accurately when the distance between the two bodies would have decreased to such an extent that no power whatsoever could prevent the collision.

Sir Billy Gillanders, Dr Pointon, and leading scientists from many countries met to assess the situation. At the end of this conference it was agreed that, allowing for every possible contingency, the A.G.S. must become operational at the latest by 19.00 hours G.M.T. on October 31st. So they had less than ninety days to complete the job!

Everyone actively engaged on the A.G.S., both on Earth and on the Moon, was informed of this absolute deadline. For the first time they had a precise date to work to. They now knew that unless their task was completed by the time stated, it would have been in vain, and the Last Disaster would be inevitable. The knowledge proved a tremendous spur and goad to all concerned.

At first there was great optimism that the job could be done on time, but as the days passed, confidence began to wane. There was still so much to do. The power station was still giving problems.

If Sir Billy, Chris and all the others had worked hard before, they now toiled even more. Day and night, on Moon and Earth, men and women strove desperately to complete the job.

"What does it matter if we work ourselves to death?" seemed to be the general philosophy. "If we don't succeed, we die anyway."

Professor Evans now spent most of his time in a hospital bed, but though his body was failing him his mind was as sharp as a needle. He was still able to help and advise Sir Billy and those responsible for the construction of his brainchild. He insisted on being constantly kept informed of progress, and was for ever cursing his own physical weakness. Morgan was his constant companion.

"But, Dafydd"—formality had now vanished—Billy said, after an outburst by the old Welshman, "you know that, physically, we can cope with all the work necessary. It's your advice and guidance that we can't do without. So for Heaven's sake, calm down and preserve yourself for the most effective help you can give."

Though he could see the logic of Sir Billy's pleas, Dafydd couldn't be quiet without a few more grumbles. He sighed as he stroked the purring Morgan.

"If anything goes wrong on October 31st, I shall go to the Moon myself," he threatened.

Fourteen

September passed. What could possibly be the last month in the history of Earth had begun.

In several of the smaller countries civilization had broken down completely. Chaos and crime were the order of the day. Food was becoming ever more scarce, some people even dying of starvation if they were not strong enough to join in the general struggle.

America, Britain and Europe generally managed to maintain a brittle calm, Russia and China ruthlessly suppressed even the first sign of disorder, so on the surface they seemed to be the calmest nations of all. U.N.O. and U.N.E.X.A. carried on valiantly, for upon them depended all the hopes of mankind and the survival of the human race.

On the Moon the A.G.S. ring was completed by the tenth of the month. Morrey, Tony and Serge, assisted by the specialists sent up from Earth, again tested every section meticulously. Any faults were put right with a fierce concentration of effort. Only the power station lagged.

"It's got to be completed. It must," croaked Sir Billy.

A shocking change had come over the tall Australian. He was gaunt, his cheeks hollow, his hair growing grey. His friends were constantly telling him he was killing himself.

"What matter?" he would snarl back, and he redoubled his efforts.

As for Chris, he seemed never to sleep.

"If we don't get this job done we'll sleep for ever," he said to Kathy, who was anxious about him. She was visiting Denver at the request of Dr Pointon, as were Fred Lodes and others of the old symposium which had first discovered the Moon's aberration. Their job was to decide, if the A.G.S. was effective, what the new EARTH-MOON distance should be. Should it be exactly as before, some 238,000 miles? Or would some other distance be desirable?

It was, of course, a major decision to make. Many people had never realized, before the present situation, just what a powerful effect Earth's satellite has. Besides the obvious influence on the tides there was the effect on the weather, on the behaviour of the Earth's crust, and on the period of rotation of the Earth itself. So if all went well with the A.G.S., should they take the opportunity of making an alteration?

Kathy was even more distressed to see the state of the Professor. His physical condition had continued to deteriorate, but he was still able to give priceless advice from his hospital bed or from a wheel-chair. It was as if the old man was determined to cling on to life to see his ideas put to use, to watch his discoveries save the world. After that it didn't matter. But then what would happen to Morgan?

On the Moon, both in Lunar City and in the Sinus Medii, tempers sometimes snapped under the terrific strain. Several times Morrey had to intervene between Bob Campbell and his workers. Nothing short of perfection would satisfy the Ulsterman. He was determined to beat Johnson, Spier and Williams, so he drove his team ruthlessly. But Morrey was able to patch up the quarrels, for he always used the argument that while Campbell and his men were falling out, Moon and Earth were getting closer. They could argue all they wished after the world had been saved. Surely that must come first.

Morrey had not seen Tony and Serge for some days. They were not in Lunar City but staying in one of the dormitory domes near the power station. They would not return to the base, they declared, until the nuclear station was finished and the power began to flow.

There was much nail-biting at U.N.O. and U.N.E.X.A. as the days dropped off the calendar at what seemed an ever faster rate. October 20th dawned, and there were eleven days to go. The tension was becoming unbearable.

Hysteria became more widespread on Earth as the waiting billions began to realize that the chances of salvation became slimmer every day. Several countries had to declare martial law to stop pillage and looting on a scale greater than had ever been seen before. If October 31st came and the power station still wasn't finished, no one cared to think about what would happen to the frightened population of this planet.

In a confidential report Dr Pointon informed U.N.E.X.A. that the distance between the two bodies was now a little less than one hundred and fifty thousand miles. This agreed closely with the computer prediction and served to confirm that October 31st was indeed the critical date.

By October 24th everything that could possibly be done to the A.G.S. had been done. There were double checks both on the ring and in the control room. Even the critical switch that would be pulled to set up the anti-gravity shield had been tested time and time again. All was ready now—except for the supply of vital power.

A great shudder of relief shook everyone in Lunar City, and then in U.N.E.X.A. and U.N.O., when, at 23.00 hours on October 26th the nuclear furnace went critical. The last fuel rods had been lowered into the core, and the space-suited engineers waited breathlessly.

It was working! Needles flickered in gauges, coloured lights winked, and the special generators began to hum. Everywhere on Earth's satellite people were weeping openly with relief. Campbell, Johnson, Spier and Williams, their rivalries forgotten, hugged each other with delight. Commander Steventon, Morrey, Tony and Serge felt faint with relief. It had been a near thing, but the job was done. Now they only awaited the order from Sir Billy to throw the switch and send power surging round the vast ring to set up the shield.

In Denver the relief was indescribable. Sir Billy's shoulders straightened and for the first time in weeks a smile flickered across his face. Chris rushed to tell Dafydd, and the old Welshman insisted on getting out of bed and walking round the room to show how much good the news had done him.

"We've done it, Morgan," the Professor called to his pet, and the cat seemed to sense the excitement in the atmosphere.

The good news was flashed round the world. Some people at U.N.E.X.A. thought that this was a little premature. Others declared that the situation was so brittle that it was vital to release the news as quickly as possible. It might be just sufficient to tilt the scales back again to sanity, law and order. So within minutes people all over the Earth were wringing each other's hands with joy. They felt that they had been snatched from the jaws of death.

"When will you tell the Commander to throw the switch?" Chris asked his Chief when he returned from a visit to Dafydd.

"I'm just about to do it," said Sir Billy. "There's no point in waiting until the last moment. I've alerted Pointon and his team to monitor the results. We should know how effective the shield is within less than an hour after it is set up."

With a spring in his step the Director, followed closely by his Deputy, made his way from his office to the communications room. It was from here that all messages were flashed between Earth and Moon. Here had been received the pictures and reports that had just managed to preserve the last shreds of morale on Earth. It was to this room that the depressing news of the constant delays had come. What a glorious moment it was now that Sir Billy could give the vital order!

In anticipation Commander Steventon was awaiting his instructions. Like the others, he could scarcely contain his excitement.

"All right, Arthur. Let it rip," Sir Billy called, and the wide grin on the Commander's face showed that this was the most welcome order he had ever been given.

"Right away, Billy," he called back. The usual courtesies of rank had been forgotten in the emotion of the moment.

The Moon pictures were coming directly from the A.G.S. control room, so the camera was able to focus on THE SWITCH. A hand—the Commander's—reached for it and rested on it for a brief moment. Then, to loud cheers from all watching on Moon and Earth, he pulled the switch. Power was sent flowing round the great ring that had taken so much effort to build.

"Well, thank goodness we've done it in time," was the silent prayer of countless thousands.

Away in the great observatory on Mount Palomar Dr Pointon, with a score of top astronomers from as many countries, awaited the signal from Denver. It came through as the Director was giving his order to the Commander. The astronomers settled down to observe how Man's titanic effort had saved his planet at the last moment. Fred Lodes put his hand on Kathy's shoulder. Soon he would be able to ask her to marry him.

Professor Evans, watching the television link-up in his private room at the hospital, felt a surge of pride run through him. It was now that he felt all the work had been worth while. What matter if his own health had suffered? It weighed little compared with the survival of Earth. Dafydd stroked his pet as he watched the scene. He saw the hand pull the switch.

"It shouldn't be long before the readings start to come through," Sir Billy said to Chris. He felt like a new man—years younger now that this gigantic task had been completed successfully. One thing above all others the Director had promised himself. When this was all over he was going to take a long holiday and visit his ageing parents in Melbourne. He looked at the telephone, waiting for it to ring so that Frank Pointon could let him know of their success.

The minutes ticked by as Sir Billy and Chris waited—and waited. A slight frown appeared on the Director's face. Surely something should be through by now? The laser measurements were so incredibly accurate that a variation in distance of much less than a mile could be recorded. He hoped Pointon wasn't being ultra-cautious and holding back the good news until he was absolutely certain. When the phone rang Sir Billy snatched at it quickly.

"Director here," he said with relief. "How's it going, Frank?"

Chris watched his Chief's face intently, and saw it turn grey.

"No!" Billy gasped. "Are you sure?"

For five endless seconds he listened in silence, then in a choking voice said, "Keep me informed, Frank."

He put the receiver down slowly, then covered his face with his hands.

"We've failed!" he said with a sob. "The A.G.S. isn't working!"

It took Chris some time to grasp the significance of Sir Billy's words. He felt himself grow cold when their meaning sank in. All—all that effort had been wasted! They were going to be destroyed after all!

By now Sir Billy had pulled himself together.

"Dr Pointon reports no change in the Moon's downward path," he said stonily. "The Earth-Moon gravity has not been diminished."

"What—what's gone wrong?" Chris gasped. "It's hard to believe."

News of the failure of the A.G.S. must have spread to the communications room, for when the Director and his Deputy strode in all was chaos. Some of the staff were weeping. One young girl was screaming hysterically. Some sat like stone images, immovable, unable to accept that the hope they had been building on had crumbled.

"Pull yourselves together," Sir Billy snapped. "Get me Commander Steventon."

The Commander's face appeared on the screen. There was really no need to ask the question, for one look at him provided the answer. Yet the Director asked it.

"You know, Arthur?"

The Commander nodded dumbly, then forced himself to speak.

"Yes, I know—but I don't know why. Power is getting through, everything seems to be working perfectly, but no shield has been set up."

"Check and double check all over again," Sir Billy ordered. "Get every man and woman on the job. How long will that take?"

"Three hours," the Commander replied promptly.

"Make it two," snapped the Director. "Call me back in two hours and report."

He turned from the screen and looked around at the stricken operators.

"This must not go beyond this room," he ordered. "None of you are to leave until I give permission."

He knew that if the world learned of the true position nothing would save it from total disintegration. They must withhold the knowledge of the failure of the A.G.S. for as long as they could. Who knows—there might yet be a chance that it could be made to work.

The next two hours were the worst that Chris could remember in the whole of his life. Sir Billy had put a strict guard on the communications room to prevent anyone from leaving and leaking the news.

Promptly, after the given interval, Commander Steventon's face came on the screen. His words were quite unnecessary. His face itself conveyed the message.

"We have failed. The A.G.S. will not work!"

Fifteen

The Director and his Deputy were back in the former's office. Both men looked completely shattered. Months and months of work, always inspired by hope, had been wasted. Hope itself, that most precious of all commodities, had vanished. Now there was nothing to do but await the inevitable, praying that one could retain sanity and dignity until all was over.

"What about Dafydd?" Chris asked suddenly. "We shall have to tell him."

"Need we?" asked Sir Billy wearily.

"We must. I think we owe it to him. Better for him to hear of the failure of his A.G.S. from us than from someone else."

"Yes. I suppose you're right. But I don't fancy the job."

"Nor me, but I'll tell him if you wish. My fear is that it will kill the old chap."

So while Sir Billy was making frantic efforts to conceal the disaster of the anti-gravity shield, Chris made his way to the private room in Dafydd's hospital. He dreaded the moment when he must tell the Professor that his brain-child hadn't functioned, that—somewhere—his theories must be wrong. How do you tell a man that his life's work has been wasted?

The old Welshman was sitting bolt upright in bed when Chris entered the room, steeled for the dreaded moment.

"You needn't tell me," Dafydd said quietly. "I know. The ring has failed."

It wasn't a question, but a statement, and it startled Chris considerably. Yet he was tremendously relieved.

"Well—" he began.

"Cut that out," the Welshman snapped. "I have had no news for the last few hours. That can only mean one thing. That the A.G.S. has failed to function."

"I'm afraid so," Chris confessed. "When the power was switched on nothing happened. The Commander and his staff have checked everything. I'm so sorry, Dafydd."

"Sorry? Fiddlesticks! It must work. I know I'm right. Some idiot has made a mistake."

"The Commander doesn't think so. Everyone has been most meticulous in the construction. Every stage has been checked and double-checked."

"I don't believe that. There must be an error somewhere, and it's got to be found. How long have we?"

"Fifty-one hours," Chris answered, glancing at his watch. "But that still allows us a small margin for error. We didn't exactly know when the critical moment would come, so we set October 31st as the target date. But in any case the critical date can be only a day or so later."

"Right!" said Dafydd. "Now listen to me, Christopher. I am going to the Moon, and I'm going to check the thing for myself."

"Either he's losing his reason or I am," Chris told himself.

"Wipe that idiotic look off your face, young man. You heard what I said. I am going to the Sinus Medii to find out for myself what has gone wrong."

"He must be rambling," Chris muttered. "How can an old man in his condition possibly think of such a thing?"

"Well, speak up," the Professor said sharply, "or haven't I made myself plain?"

"Er—oh yes," Chris stammered, "but—but, Professor, you know that's impossible."

"Impossible, is it? That's why I'm going to do it. Come on.

There's no time to lose. Take me to your Chief at once."

Dafydd, with a visible effort, swung himself out of bed and staggered to his feet. While Chris still stared in unbelief the old man reached for his dressing-gown and slippers.

"Come on, Morgan," he called to his pet, "we're going to the Moon."

"Look, Dafydd," Sir Billy was saying half an hour later, "you know that what you suggest is absolutely impossible. Even if you were a fit man you're old, and you've had no training. A journey to the Moon would kill you."

A bewildered Chris had brought the Professor to see the Director, hoping that Sir Billy would be able to dissuade him from his mad idea. But Dafydd was persisting.

"You have no right to refuse to let me try and find out why my life's work has failed. You have no right to refuse me the opportunity to put it in order. You have no right to prevent me from getting the A.G.S. to work. Even if there were only one chance in a million that I could succeed, then you'd have no right to deny even that slim chance to the human race."

"I can't let you go," Sir Billy muttered. "I'd be killing you."

"Better one man be killed than billions die," Dafydd argued. His voice seemed to be getting stronger all the time. Then he decided on a new line of attack.

"What are you going to say, Sir William, if you refuse me this chance and I tell the world about it? Even if my chance of success is remote—which I do not accept—how will you justify your obstinacy to mankind? It is you, William Gillanders, who will be responsible for the destruction of this planet just as much as the Moon."

Sir Billy flushed in anger. Then he realized what the old Welshman's tactics were. He smiled ruefully.

"You put it very forcibly, Professor, and you leave me little choice. If you are determined to throw your life away I can't stop you. You may go to the Moon."

Chris was staggered. He couldn't imagine the old man surviving the rigours of the journey, let alone the harsh lunar conditions. Yet he could see Sir Billy's dilemma. Was it not his duty to try this faint chance? So if Dafydd was determined to go, and the Director was going to let him, there was only one thing to do. He, Chris, would go along too.

"I shall take Morgan," Dafydd grinned, happy now that his victory was complete. "I'd like him to be the first cat on the Moon."

"Very well," sighed Sir Billy. "We'll get things organized at once."

The prospect of having his way and going to the Moon seemed to have given the Professor a new lease of life. But Chris wasn't deceived. He knew that his friend was a very sick man. Once the stimulus of this excitement had passed away, anything could happen. Still—that was the way he wanted it. They must let him see if he could succeed with the A.G.S. when all the others had failed.

Chris himself instructed Dafydd how to adjust the spacesuit and how to strap himself to the contour couch in the ferry. He had grave doubts about whether the old man would be able to stand the strain of the acceleration, but it was a risk they were now committed to take. It was thought best to give Morgan an injection and put him to sleep for the journey.

The time came for them to get into the ferry. Dafydd, assisted on each side by a technician, clambered slowly on to the couch and was strapped down. Sir Billy squeezed into the cabin to shake his hand. He felt it difficult to speak, knowing that the old Welshman was going to his death, and that he himself was well aware of it. Chris took the couch alongside, and Morgan was tucked away in a basket; he wouldn't wake up until they were safely in Lunar City.

The news that Professor Evans himself was coming to the Sinus Medii was received in Lunar City with incredulity. Many of those engaged on the construction of the A.G.S. had not had much previous training for lunar conditions, and had found out what a strain they imposed. But here was an old man, with no preparation at all, coming out to try to find the fault in the A.G.S. when they themselves had failed. Were his theories wrong after all, or had they made a serious error in their work? The coming of the Professor gave the shocked inhabitants of Earth's satellite something to discuss other than the approaching disaster. Maybe it also gave them a gleam of hope.

Just before the cabin door was sealed another passenger came to join Chris and Dafydd.

"This is Dr Gomez." Chris introduced the newcomer to the Professor. "He's going on a tour of duty in Lunar City."

Which wasn't strictly true. Actually Dr Gomez was an expert in space medicine, and his sole job would be to keep an eye on the old Welshman. In the lockers were drugs of all kinds that might be of help if and when Dafydd found himself in difficulties.

"I can make no promises," Gomez had said to Sir Billy when he received his assignment. "I think he's throwing his life away."

The three-man crew of the ferry also had special instructions. Instead of blasting-off under high "g" until they reached escape velocity, they were to build up their speed more gradually. Thus their elderly passenger would not be subject to the same stresses as on an ordinary flight. Also the crew were to maintain this gentle acceleration until the ship had to be turned for deceleration—which again would be gentle but continuous. This flight plan was designed to ease the pressure on Dafydd, and at the same time get him to the Moon as quickly as possible. In less than twenty-four hours, actually.

"Is Morgan all right?" asked Dafydd from his couch.

"He's fast asleep, Professor," Chris assured him. "He's snug in his basket and won't wake up until we're inside the City."

"I wonder how he'll get on there," the old Welshman mused, but further conversation was interrupted by the quivering of the ferry. The motors had been ignited and they were about to lift off.

Both Chris and the doctor were trying to watch their passenger without his being aware of their close and continuous scrutiny. At first the old man's eyes closed as his body became subject to the stress of lift-off. After a time he opened them and attempted a smile at his companions.

"Don't look so concerned," he chided them. "I'm not going to die. Not just yet."

While the Professor lay with his eyes closed his mind was not idle. If a scientific principle was true in Aberystwyth, there was no reason why it shouldn't hold good on Earth's satellite. Even the vastness of the A.G.S. should not have caused the trouble. His calculation had shown that the great ring would work more efficiently than his own home-made apparatus. He went over in his mind all the possible sources of error and the places where the fault might lie.

He had to accept that the engineers who had built the ring were competent and conscientious, and that they had tested it beyond doubt. To check for himself he would send a surge of power through and confirm that there were no breaks in the ring itself. As for the nuclear power station, he didn't feel competent to test this. It was not his field and he must assume that the U.N.E.X.A. experts—the best in the world—had done a good job.

Perhaps the trouble lay in the control room. Control room! Dafydd couldn't avoid a faint smile when he thought of his own miniature tangle of wires and dials. Now his work had been expanded and dignified with the name of Control Room. Well, it was just a matter of scale and degree of sophistication. The basic principles were the same. He narrowed the areas of possible fault to six; he would concentrate on testing each of these.

"Are you asleep, Professor?" asked Chris, bending over the old man's contour couch. "Would you like something to eat?"

Dafydd, with an effort, raised himself wearily.

"No," he replied, "but I'd like a drink."

He didn't notice how closely Dr Gomez was observing him. The doctor whispered something to Chris.

"The doctor suggests you have a tablet," Chris told the old man. "He says it will help to keep you going."

"Oh, he does, does he?" asked Dafydd, sitting up on the couch. "Well—ouch!"

He had winced with pain, for the ferry was under steady though gentle acceleration, and Dafydd was not accustomed to it.

"Take it easy, Professor," Dr Gomez said urgently. "These tablets are designed for just that discomfort you are feeling. We use them quite often with new travellers."

"All right," Dafydd whispered. He hoped he was going to live through this trip to the Moon. Especially as he now thought he could correct the A.G.S.

The rest of the journey was uneventful. Both the doctor and Chris kept their eyes on the old man's face, but he spent most of the time lying back on the couch with his eyes closed. Twice more he had a drink and a tablet.

"We're going to touch down now," Chris told him at last. "In half an hour this will all be over."

The Professor did not reply. Chris and the doctor exchanged anxious glances. Then Dr Gomez reached gently for Dafydd's wrist to check his pulse, but the old man opened his eyes, pulled his wrist away and said weakly, "I'm not dead, if that's what you're trying to find out."

The touchdown was as smooth as the crew could make it. Chris breathed with relief as the ferry settled on the landing-pad.

"Are we here?" asked Dafydd, suddenly alert again.

"Yes, sir, you're on the Moon," Chris told him.

A wide grin spread over the old man's pale face.

"I guess I'm the original 'Old Man in the Moon'," he smiled. "I suppose I am the oldest person ever to have come here?"

"Yes, Professor. By far. You've broken all records," the Deputy smiled back.

"Be careful how you move," Dr Gomez suggested. "The lunar gravity takes a little bit of getting used to. You take off and bump into things if you don't watch out."

"How's Morgan?" Dafydd asked as he prepared to stand up. "Heavens!" he exclaimed as he rose some inches off the couch. "I see what you mean."

"Morgan's all right," Chris told him. "He's still asleep. Dr Gomez will give him an injection to wake him up once we're inside Lunar City."

Chris himself carried Morgan's basket into the transfer vehicle, while the doctor held Dafydd's arm to steady him. As the vehicle rumbled across the lunar surface to the Base, the Professor looked with interest through the thick but transparent windows.

"I never thought I would come here," he muttered.

The transfer vehicle drove right into the main airlock. Its passengers had to wait until air had been pumped in and the pressure equalized before they could open the door and step out into Lunar City. Commander Steventon and Morrey were waiting to greet them and to meet the Professor. Introductions over, the Commander insisted on Dafydd getting some rest after his journey. When the old man protested Chris and Dr Gomez added their support to the Commander, so the Professor went reluctantly to a room that had been prepared for him.

"I can't get used to this durned gravity," he grumbled as he was assisted on his way. A few minutes after he'd settled down to rest Chris came in, carrying a bewildered Morgan.

The cat sprang to his master as soon as he saw him, but instead collided with one of the walls.

"Steady, Morgan," chided the old man. "You and I have to get used to these crazy conditions here."

While he was resting the Professor insisted on discussing his plans with the others.

"What date is it?" he asked suddenly.

"It's October 31st," Chris told him.

Sixteen

With the aid of Tony and Serge, Chris managed to get the Professor into a spacesuit. It would be necessary for him to wear one when making one of the tests he had proposed. They were very worried about the effect of the suit on his health, but Dafydd declared—rather breathlessly—that he was fine and there would be no trouble.

Morgan refused to part from his master, though he did arch his back when he saw Dafydd in the spacesuit.

"I'm afraid I'll have to leave you behind while I go out and put the shield right," the old man told his cat, stroking him affectionately. But Morgan had other ideas. He had to be picked up and shut in a room to stop him following the Professor and his companions into the airlock.

The transfer vehicle, usually reserved for trips between the ferries and Lunar City, was being used to make things easier for Professor Evans. It trundled across the lunar surface and carried the little party out to the site. Dafydd drew in a sharp breath at his first sight of the vast ring he had been responsible for designing. A few minutes later the vehicle drew up alongside the A.G.S., which curved away as far as the eye could see.

Chris helped Dafydd to don his helmet. He watched the old man closely, but Dafydd seemed unperturbed and keen to begin his task. They entered the control room, where a number of engineers were working. As soon as the airlock was sealed Chris removed the Professor's helmet, and was concerned to see that the old man was having some difficulty with his breathing.

"I'll be all right in a moment," Dafydd gasped, and they all tried to occupy themselves while he recovered his breath.

"Right. Now let's have this power on," he said at last, and one of the engineers threw a switch. The dials showed that the power was, indeed, flowing round the ring. There was nothing wrong, then, with the nuclear station or with the connections to the ring itself. So now he must begin the series of detailed tests he had planned.

Though he had never been in that control room before, Dafydd seemed to know it intimately. And so he should, for he had been involved in the design and supply of every part. He had pored over drawings and sketches, he had tested the components as they arrived for shipment. Now he fingered a number of them familiarly, for was not this the giant offspring of his own brain-child?

One after another the Professor tested the key circuits and components where, he had decided, the fault must lie. He was testing a series of intricate coils when Chris saw him wince. He tried to carry on, but sweat began to ooze from his face with the severe pain. Chris went to him quickly and urged him away from the coils.

"Sit down for a bit, Professor," he begged. "I'll get you a tablet."

Dr Gomez had provided him with tablets for just such an occasion.

"I'll be all right," Dafydd gasped. "I must finish these tests."

He swallowed the tablet Chris gave him and appeared to revive for a few moments, but his face soon went grey again with the pain.

"Angina," muttered Commander Steventon. "We'd better get him back to the City."

The old man was barely conscious when they fixed the helmet on him and carried him through the airlock to the transfer vehicle.

"Drive as quickly as you can," Chris urged the driver, but the man required no telling. In record time they were entering the main airlock and waiting impatiently for air to be pumped in. The Commander had warned Dr Gomez by radio, and a stretcher was waiting. They carried the old man gently into the sick bay. There was a flurry of fur and Morgan leapt on top of his master. Dafydd tried to smile and stroke his pet, but Chris lifted the animal gently away.

"Give—give me some drug, Doctor," gasped Dafydd as Gomez bent over him. "I—I must get back and—and finish that job."

The doctor looked very worried. He knew the situation exactly. If the Professor could complete his check then there was a good chance that the A.G.S. would work. On the other hand the Professor was a very sick man—probably dying, in fact. An injection strong enough to enable him to return to his task would undoubtedly kill him quite soon.

When Chris returned after shutting up Morgan the doctor whispered his dilemma. Chris didn't hesitate.

"Give him the injection," he said sadly. "He would never forgive us if we didn't."

So Dr Gomez bared Dafydd's left forearm, swabbed it, and inserted the needle into a vein. As he pushed home the plunger he closed his eyes and said a silent prayer. He was killing a man so that billions might live.

Within a few minutes the lines of pain had vanished from Dafydd's face and he sat up.

"That's better," he said in a stronger voice. "Come on: This drug won't last very long. We mustn't waste it."

It seemed that all activity in Lunar City was centred round the old man. No one had any interest in doing anything, except awaiting the outcome of his efforts. Word soon got around that Dafydd was probably making the ultimate sacrifice to get his job done, and there was almost complete silence from the onlookers as the little party made its way to the airlock once more.

Just before they entered Dafydd paused and seemed to falter. Chris's heart beat rapidly. Was the old man unable, at the last minute, to face his ordeal? But it was something else that was troubling him. Turning to Chris he hesitated, and then said in a low voice, "Christopher, you will look after Morgan, won't you?"

The Deputy felt the tears spring to his eyes. He was unable to speak for the lump in his throat. He nodded dumbly and gave Dafydd's arm a squeeze that spoke more than words ever could.

Back in the A.G.S. control room the Professor seemed like a new man. Though this wasn't exactly his world, he had been the cause of its creation. He felt a deep affection for this large and complicated apparatus.

"Now, are you going to behave and let me put you right?" he asked severely, addressing the room full of equipment.

Closely watched by Chris, together with Tony, Morrey and Serge—who, by some strange coincidence, just happened to be in the control room at that time—Professor Evans bent over his beloved apparatus. Muttering to himself, chiding or praising the coils, dials and resistances, patting some and scolding others, the old man went about his work.

Occasionally he would snap out an order for some piece of equipment which, as if by magic, Tony produced in a flash. But after an hour the old man began to flag. Anxiously Chris saw him straighten up and wince several times, but he refrained from commenting on it. The effects of the drug were evidently wearing off. And Dr Gomez had said that he would be unable to give him another!

So the fate of the world trembled in the balance as a sick old man wrestled with the problem of the faulty control apparatus. The tension mounted minute by minute. Even the tough Tony felt an inclination to scream.

More and more spasms of pain crossed the Professor's face, and many times he had to pause in his work. The watchers knew he couldn't last much longer. Then suddenly he jerked himself up.

"This is it! This is the end!" Chris whispered to Morrey, who was standing near. "Get ready to catch him."

But Dafydd didn't fall. His face lit up with an intense joy. It was a look such as the watchers had never seen before. It was the look of a man who had just saved the world, saved it from the Last Disaster!

"I've done it," the Professor announced. "It will work now."

And then he did fall. Chris and Morrey caught him and lowered him gently to the ground. His face still showed intense satisfaction, and there was no sign of the wracking pain in his calm features. He motioned Chris to bend over him, and a lovely smile illuminated his face.

"Goodbye, Chris. Say farewell to all," Dafydd said in a barely audible whisper. "And tell Kathy to look after Morgan."

Chris, his eyes blinded with tears, could only nod. He reached for and held the old man's hand. He held it for fully a minute. Then he felt the Professor go limp. His soul had returned to its Maker.

"He—he called me 'Chris'," was all the Deputy managed to say.

It was a tense moment when Commander Steventon came to switch on the A.G.S. He had kept U.N.E.X.A. fully informed, and now Sir Billy had given the order for the fateful switch to be pulled. With a hand that he had difficulty in keeping steady, Commander Steventon seized the handle, and with a quick movement made the connection. Not two seconds later there was a wild yell from another part of the control room.

"It's working!" someone screamed hysterically. "The shield is working!"

There was a rush to see proof—and then for a few minutes pandemonium reigned. People wept and hugged each other. They danced and sang quite drunkenly. Only Chris remained quietly beside the old man who had made it all possible.

On Earth there were even wilder scenes. Within five minutes, instruments at Palomar and in a dozen places elsewhere confirmed what was happening. The gravitational attraction of Earth and Moon had been slackened, and our satellite was beginning to move away. It was as if the whole human race, waiting in a gigantic condemned cell, had had an eleventh hour reprieve. The effect was indescribable.

At last Sir Billy was able to think and speak coherently.

"Well, Frank," he said over the phone, "what distance shall we fix it?"

Dr Pointon's voice, even over the wires, gave evidence of his recent emotion. But as a scientist he had to conquer this weakness.

"We believe it ought not to be too different from its previous position," he told the Director. "Earth has become used to the Moon's effects over millions of years, and we find no valid reason for altering this. We are recommending an orbit with a radius of 225,000 to 250,000 miles."

"That's fine. It looks as if we shall be back to normal in twenty-four hours. Then we can cut off the A.G.S. We can always re-activate it if the Moon misbehaves again."

In Lunar City the astronauts and scientists had filed silently past the casket containing the remains of Dafydd Evans. Morgan had had to be sedated, for the animal had somehow known of his master's death. His piteous howls and his refusal to be comforted left only one option. He was drugged until he could be shipped back to Earth.

There were urgent consultations between Denver and Lunar City about the Professor. Dafydd had no relatives, and his housekeeper refused to give anyone a lead. Should they bring him back to Earth?

"What do you think, Chris?" asked Sir Billy. "You were as close to him as anyone."

It was true. The Deputy had felt a growing affection for the old man, and he was sure that Dafydd was beginning to look upon him as a son. Where would Dafydd have liked his last resting place to be? In a Welsh valley? On a mountain side overlooking his beloved Aberystwyth? Or perhaps—Chris thought of the vast ring that was an immense memorial to the genius of this man. Yes, that was it! Close to his memorial. Dafydd should be buried on a hillside overlooking the A.G.S. From here he could be on watch for all eternity.

The relief to the people on Earth was boundless. So many had already perished, so many faced certain death, that the removal of all danger was at first unbelievable. But when the tides began to recede, when the earthquakes stopped, then people began to think it was all true. For a time they enjoyed the ecstasy of utter relief. Then they were recalled to work by their governments.

There was an immense amount of reconstruction work to be done. Whole cities had to be rebuilt, whole industries re-created. Our whole civilization, which had been tottering on the brink of disaster, had to be re-cast. Many people hoped that the common danger, which had caused nations to work together as never before, would not have been without its good effects. Could not the present universal comradeship continue? Time would tell.

Kathy stroked Morgan, who was curled up on her lap.

"I think he still misses the Professor," she told her husband. Fred came up and looked at the animal.

"Mrs Lodes," he said, "you are nursing the only cat who has ever been to the Moon."

Morgan opened one eye and stretched. Then he yawned and promptly went to sleep again.

"I don't think such fame impresses him very much," Kathy smiled.

Chris called that evening and was pleased to see that the cat had settled down so well.

"We'll be wanting him for a few days," he told Kathy and Fred. "He's to be photographed from all angles."

"Whatever for?" gasped Kathy. "Hasn't the poor thing had enough to put up with?"

"Such is fame," grinned Chris. "Most of the new cities that are being built or rebuilt insist on having a statue to their saviour, Professor Dafydd Evans. And what statue of the Professor would be complete without Morgan at his side?"

"No, I suppose you're right," sighed Kathy. "I hope all this fame doesn't get to his head."

As if in answer to Kathy's words Morgan opened his eyes, and Chris could have sworn he was laughing.

"MIAOW," he said.